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*Hon C.P. McTaggart*

# ROYAL COMMISSION

ON

# TRANSPORTATION

## HEARINGS

HELD AT

OTTAWA

VOLUME No.:

**103**

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ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held  
in the Court Room, Board of  
Transport Commissioners  
Offices, Ottawa, Ontario, on  
the 19th day of October, 1960.

COMMISSION

|                            |          |
|----------------------------|----------|
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| Mr. A. H. Balch            | Member   |
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| Mr. H. A. Mann             | Member   |
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| Mr. H. W. Ellicott     | Adviser             |
| Mr. F. W. Anderson     | Secretary           |
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--- On commencing at 10:00 a.m.

THE CHAIRMAN: Order, please. Mr. Mauro?

ERNEST W. WILLIAMS, JR. (resumed)

RE-EXAMINATION BY MR. MAURO:

Q. Dr. Williams, I would like to deal with a few matters by way of re-examination. At page 17007, volume 101, you were being cross-examined by my learned friend, Mr. Cumming.

The following questions and answers appear:

"Q. You are familiar, I take it, Dr. Williams, with what are known as transcontinental rates?

A. Yes.

Q. And they are established, as I understand it, in order in part at least to meet off-shore competition at the coastal points. For instance, a transcontinental rate might be put in between Toronto and Vancouver to meet off-shore competition at that point?

A. Yes, yes.

Q. And that rate may under those circumstances be lower because of that competition than a rate from an intermediate point closer to Vancouver than the competitive rate so established?

A. Yes, quite so."

I wanted to be clear, Dr. Williams, and the Commission to have this situation completely clarified.





1  
2 Now, for example, if there are manufacturers in Toronto  
3 and in Winnipeg --

4 MR. SINCLAIR: I would think, Mr. Mauro, if  
5 you do not mind me bringing it to your attention, that  
6 the next question and answer should also be read.

7 MR. MAURO: Perhaps I will ask my question and  
8 get my answer and then read in the next question and  
9 answer.

10 MR. SINCLAIR: Well, I would like to have the  
11 next question and answer, where my friend stopped  
12 reading, brought into the transcript at this point.

13 THE CHAIRMAN: The witness can have his mind  
14 refreshed by reading it over.

15 MR. MAURO: He certainly can, Mr. Chairman.

16 Q. So, it is clear, Dr. Williams, if there is  
17 a manufacturer in Toronto and in Winnipeg both shipping  
18 into the Vancouver market, and off-shore competition  
19 manifests itself at Vancouver, the railway publishes a  
20 competitive rate from Toronto to Vancouver, should they  
21 publish a comparable rate from Winnipeg to Vancouver?

22 A. Well, that is an interesting and troublesome  
23 question. The competition we were talking about in that  
24 earlier exchange with Mr. Cumming is what I described as  
25 a market type of competition, and I think the type to  
26 which you are still referring falls in that category.

27 The competition of export traffic on the  
28 Seaboard is a thing we have had a little experience with  
29 in the United States and in connection with which I  
30 cannot recall any instance in which we had to meet an







1  
2 issue of quite that kind for that precise reason.

3           It has been a general principle with us,  
4 however, that under regulation the carrier's election to  
5 meet competition is open to it, providing it can do so  
6 at a compensatory rate and it is an election that does  
7 not permit the carrier to choose among the competitive  
8 circumstances that may be involved with a like force and  
9 kind of competition.

10           That rule I cannot recall that we have applied  
11 in a situation in which the competition was market  
12 competition only. We do it all the time when we are  
13 dealing with carrier competition -- competition from other  
14 types of carrier.

15           It seems to me, though, that from the point of  
16 view of economics it is a rule that could appropriately be  
17 extended to the kind of case you just mentioned, because  
18 if you do not use it, then, what you are saying in effect  
19 is that to permit the carrier to meet the competition from  
20 one point but not from others, having, as I think your  
21 condition stated, competitive producers of the same  
22 commodity or commodities attempting to reach the same  
23 market, and one indeed closer than the other, to whom the  
24 competitive rate was extended, that we have here a good  
25 economic argument for saying that if we desire to avoid  
26 ~~effecting~~ simply out of what might be called somewhat  
27 arbitrary treatment of the rates by the carrier the  
28 respective opportunities for those two producing centers  
29 to develop, then we must apply that kind of a rule.

30           Q. I would expect that the governing principle







1  
2 is as you have suggested at page 17008, where my learned  
3 friend, Mr. Cumming said:

4 "Q. And I suppose the propriety of it would  
5 be measured by the extent to which the railway  
6 could maximize its net revenue position?

7 Would that be your opinion?

8 A. Yes, I would think so."

9 A. Yes, in this somewhat broadened context as  
10 compared with the earlier exchange would mean to me to  
11 maximize the revenue, the entire traffic from all sources  
12 that would meet the external competition in the coastal  
13 market.

14 Q. On page 17067 of volume 102, you were  
15 discussing matters with my learned friend, Mr. Brazier,  
16 and the following appears:

17 "Q. Dr. Williams, would you consider it proper  
18 for the railways to be permitted to put in rates  
19 lower than necessary to meet the competition  
20 if, by doing so, they could maximize their net  
21 revenue?

22 A. I really see no objection to that, Mr.  
23 Brazier. That is certainly true in the case of  
24 carrier competition ..."

25 And you go on to explain to him the particular  
26 situation.

27 And in the same exchange, Mr. Commissioner  
28 Mann discussed with you a particular matter. I am reading  
29 now from page 17071, volume 102.







1  
2 "COMMISSIONER MANN: What I was looking at was  
3 page 17 of the volume for which you have so  
4 much responsibility, namely the Federal  
5 Transportation Policy and Program, where you  
6 say the government should retain sufficient  
7 control to prevent destructive competition  
8 aimed at driving out competitors on a basis  
9 other than economic efficiency."

10 I wanted to read to you, Dr. Williams, the  
11 complete quotation that Commissioner Mann was referring  
12 to and ask you whether or not you felt the same, whether  
13 or not that represents your opinion as set out in the  
14 brief.

15 I am reading from page 17 of a document entitled  
16 "Federal Transportation Policy and Program", U.S.  
17 Department of Commerce, March, 1960, on page 17 under the  
18 heading "Federal Role".

19 "The Federal Government should reduce such  
20 restrictions on the pricing freedom of carriers  
21 as stifle economic efficiency. The benefits of  
22 competition could then be passed on to the  
23 public through reduced rates. The government  
24 should retain sufficient controls to prevent  
25 destructive competition aimed at driving out  
26 competitors on a basis other than economic  
27 efficiency, and to prevent excessive charges  
28 where there is little or no competition, as  
29 well as less exemption from the antitrust laws  
30 if needed. This program must be closely







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coordinated with the program on control of entry, and should also proceed gradually. Under the revised regulatory standards and in the light of the economic circumstances in the transport industry, in the long run, rates should come to be based primarily on cost."

And your recommendations:

"Rail and Truck.

14. Set a floor for competitive pricing by amending the National Transportation Policy to define 'unfair and destructive competitive practices' to include only rates below the long-run marginal costs of the carrier making the rates. As a practical interim measure, we may use the ICC's definition of out-of-pocket costs, which may often err on the high side for railroads, and which include a return upon 100 percent of the mobile plant and 50 percent of the fixed plant."

"Item 15. Retain present standards of reasonableness for maximum rates, but preclude the prescribing of maximum rates at less than the full cost of the service involved."

Would that be generally the basic Rationale also of your submission here?

A. I think it is essentially, Mr. Mauro. The recommendations, of course, were couched in the context of our particular situation in the United States at this stage and in an effort to find something that might





1  
2 conceivably be practicable in our case. The major  
3 principles associated with those recommendations,  
4 however, I think are sound principles.

5 COMMISSIONER MANN: Mr. Mauro, if you are going  
6 on to another point, I meant to ask Dr. Williams something  
7 yesterday which slipped my mind, and I would very much  
8 like him to help us with that.

9 If one generally advocates rates should be  
10 based on costs or tend towards costs, why is one not  
11 driven then to the efficacy of some competition rate-  
12 wise among railways and the abolition of or the  
13 diminution of the influence of rate bureaus in railway  
14 rate publication?

15 THE WITNESS: Well, that is a thing with which  
16 we have had some little trouble. We had it initially  
17 and my own experience at the time of the original Cabinet  
18 Committee on Transportation Policy and Organization, which,  
19 as you may recall, strongly advocated greater freedom of  
20 competitive opportunity in the making of rates.

21 Now, when one makes that recommendation,  
22 immediately, of course, it will be suggested that in the  
23 way in which the thing was stated in that report it  
24 applied only to the question of competition between  
25 carriers of different types. And the question arose in  
26 the hearings before the Congress and the Department took  
27 the position -- we had not in the report specifically  
28 dealt with that aspect of it -- the Department took the  
29 position that it had been the intention and it was the  
30 intention of the Department to apply that recommendation to







1

2 both competition within modes and between modes.

3

4 When there is, however, of course, the difficulty  
5 which I think makes a distinction between what is possible  
6 in respect of railroads and what is possible in respect  
7 to most other forms of transportation, arising out of the  
8 fact that railroads do have the kind of a cost structure  
9 which they have.

9

10 There is an uneasiness, certainly, about what  
11 the results may be out of the unfortunate experience of  
12 the past. If one were able to effectively tie that kind  
13 of freedom of competition in the railroad industry, as  
14 well as among different types of carrier, to the minimum  
15 rate controls that were just cited, at least upon the  
16 surface it would seem that destructive competition, if  
17 it broke out, because of the characteristics of the  
18 railroad industry and the absence of the right to make  
19 rates collectively, could then be brought in check and  
20 with reasonable promptitude.

20

21 There is, however, a rather practical difficulty  
22 with us, which may not be a serious difficulty in Canada  
23 because your railroad situation differs, as was pointed  
24 out yesterday. We do have a problem of making joint  
25 rates among two and more railroads in many kinds of  
26 circumstances and right across the country. So long as  
27 our railroad system remains as multi-fariously owned and  
28 operated as it is we will continue to have that problem  
29 and on a very large scale.

29

30 Now, it is impossible to have joint rates  
unless you permit carriers to get together for the purpose







1

2 of making such joint rates, and unless we had in our  
3 Act an exemption from the anti-trust Statutes for that  
4 kind of activity, it would certainly make it impossible  
5 for us to continue joint rates.

6 Then, it becomes an intensely difficult  
7 practical problem to consider the distinction of getting  
8 together on joint rates and what you are going to do  
9 about the other rates, especially if you have a rule on  
10 discrimination as in the general case in section 3 in  
11 connection with which a carrier could be charged without  
12 having perpetrated an unlawful discrimination because of  
13 the relationship of its rates locally to its lines and  
14 joint rates in which it has engaged.

15 We, therefore, noticed in the Department of  
16 Commerce study in the passage that Mr. Mauro just read  
17 that it is certainly a consistent position to say that  
18 if you are going to rely on more and more competitive  
19 forces, then you must retract the exemptions from the  
20 anti-trust laws, but we do not say how this can be done  
21 because, frankly, we do not know. We stated it as being  
22 an issue that would no doubt arise -- we knew very well  
23 it would arise -- if this thing came forward to serious  
24 consideration for possible actual revision of the  
25 legislation.

26 It is, I think, a very baffling problem, but  
27 I think there is also a case than can be made, and made  
28 fairly persuasively, that you may well have to treat  
29 railroads somewhat differently in this matter than you  
30 could treat most other forms of transportation.





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COMMISSIONER MANN: I was interested in

getting your reaction to that suggestion in view of what was said in the Economics of Transportation, by Professor Currie, because they seem to hold very strongly that the action of rate bureaus has inhibited freedom of action by the railways and has, perhaps, resulted in a lesser flexibility of action than would have been possible without.

THE WITNESS: Oh, I do not think there is any doubt about that. I think the record would support the position they took, and this is true not only because there are substantial obstacles in the rate bureau machinery itself to getting rates into effect, but also because the whole process is one which slows up substantially competitive adjustments and, therefore, makes it more difficult by that route to meet competition quickly and effectively than if you did not have rate bureau procedures to deal with.

On the other hand, we have had, since the amendment of section 5, which we know is the Bullwinkle amendment in the Interstate Commerce Act, new agreements which have been filed and considered by and approved by the Commission under that section and which invariably include strong provisions retaining the right of independent action of any carrier which is a member of such a bureau, and that right of independent action, we have found, is increasingly exercised in present circumstances. That is especially true of the motor carrier industry which has never been so closely knit







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Williams, re-ex.  
(Neuro)

17195

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2 with the railroad industry, and involves enormous  
3 numbers. We have rate bureaus in which there are upward  
4 of 1500 of motor carriers, which is a hard thing to hold  
5 back.  
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2 But it is also true in the railroad case. We have  
3 had several railroads, some of them of major size, taking  
4 numerous independent actions, so that the process has  
5 been loosening up a bit and the carriers themselves  
6 have made efforts to make it work more expeditiously  
7 and effectively in the face of what they have to contend  
8 with.

9 COMMISSIONER MANN: Thank you, Mr. Mauro.

10 MR. MAURO: Q. In Volume 102, at page 17081  
11 you were discussing with my friend Mr. Sinclair this  
12 matter of passenger service discontinuance. The  
13 following appears at that page with Mr. Sinclair asking:

14 "Q. So that you are under no misapprehension,  
15 the statistics and the analysis will show  
16 that for Canadian Pacific it has passenger  
17 train service on slightly less than 50  
18 per cent of its miles of road.

19 "I wanted, then, from there to say to  
20 you this: if a witness appeared before this  
21 Commission, a Canadian who was thoroughly  
22 familiar with the Canadian Pacific service  
23 and the area served by Canadian Pacific  
24 passenger train service and thoroughly know-  
25 ledgeable as to the interplay of alternative  
26 transportation, if such a witness said to  
27 this Commission that he knew of no passenger  
28 train service on the Canadian Pacific which  
29 was required in the national interest, you  
30 would not disagree with him, would you?





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"A. You said that none was required?

3

"Q. Yes.

4

"A. I would certainly disagree with him  
in the present state of affairs."

5

6

As I understand the evidence which you have submitted  
here, Dr. Williams, you are suggesting that non-  
compensatory passenger services be discontinued as  
soon as possible but in the case where the service  
must be continued in the national interest that the  
resultant burden be lifted from the freight shipper  
and become a charge on the national treasury?

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A. That was what I was in effect arguing  
for.

14

15

16

Q. And at no place, as I understand it,  
do you attempt to define what is the national interest  
in Canada?

17

18

A. No, I do not.

19

20

Q. And do you as an economist feel capable  
of defining what is the national interest in Canada?

21

22

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A. When I used the term national interest  
in this context I was really implying that Canadian  
conceptions as to what their national interest may  
be would have the effect of saying to the railroads,  
if you want to put it that way, that here we have to  
have a discontinuance of certain services, we are not  
prepared to sustain them notwithstanding the fact that  
you make a good showing that it is non-compensatory.

29

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THE CHAIRMAN: What would the term mean in  
the United States?







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THE WITNESS: National interest?

3

THE CHAIRMAN: Yes.

4

5

THE WITNESS: It is a term as to which no two people would agree and one of the most difficult things to define that we have.

7

THE CHAIRMAN: Even in Canada?

8

THE WITNESS: Oh, I suspect they will render a definition which they think to be an ideal definition of it. The economist, of course, if you want to look at the economic national interest in the abstract can perhaps offer an answer in respect to that which takes the form of efficient processes and relationships on lines of development within the economic system. It is certainly not necessarily true that an economic definition of the national interest is comprehensive enough to take care of the situation. We recognize certainly that considerations of national effect will sometimes override any economic major considerations of the same needs and requirements of equity. The question of people, allocations and what not may also override it. In the ultimate I suppose one cannot say we have any picture of the national interest except as our respective democratic processes enable us to get some kind of consensus as to what they may be. I think the economist can only shed light on that part which is economic in character. He can generally say, perhaps, that here are some alternative courses of operation and if you follow ~~this one~~ you get this kind of result. He may say that makes good

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1  
2 economics but that is not the final answer. An econom-  
3 ist can never give a final answer on this sort of thing.

4 THE CHAIRMAN: Well, apply it to transpor-  
5 tation.

6 THE WITNESS: Applying it to transportation I  
7 would say that unless there are other persuasive reasons  
8 that arise from non-economic factors then it is reason-  
9 ably clear that the kind of system that results in a  
10 efficient relationship which the carriers on the one  
11 hand through efficient management and efficiency and  
12 development on the other and the pricing of the ser-  
13 vices that reflect in effect their costs with reasonable  
14 closeness, from that it gives proper guidance as part  
15 of the price system as up to a pretty good transportation  
16 policy which I would not want to retreat from except  
17 in the face of very persuasive non-economic modification.  
18 I think the one we were just talking about in respect  
19 of the possible necessity to continue some rail pas-  
20 senger services at least through a transition period  
21 is one of those. It is all very well for us to say  
22 these services can be operated more economically by some  
23 other means which perhaps is not presently being so  
24 performed. Even if it is being so performed there  
25 may be an indisposition in some cases on the part of the  
26 public to make use of the service which so far has  
27 not been overcome. They may feel a need for it even  
28 if the economist may say it does not make sense if you  
29 look at the figure relationships.

30 THE CHAIRMAN: In your public facilities







1  
2 relations you have the term public interest?

3 THE WITNESS: Well, that is a term which I  
4 am sure a lawyer would talk to better than an economist.  
5 We generally say in talking about -- we put carriers  
6 in much the same status because they are treated very  
7 much alike, public utilities. We say in effect that  
8 the public utility is an industry affected by the public  
9 interest, but it is a public utility simply because  
10 there has been, through whatever procedures there may  
11 be in a given country, in our case usually through the  
12 legislative body, there has been enough national con-  
13 cern about this public interest to occasion an exercise  
14 of regulatory control over it. The economists argue,  
15 of course, that any kind of an enterprise that is  
16 basically a natural monopoly, and generally speaking  
17 an electric distribution system or a water distribution  
18 system fits that condition because one certainly cannot  
19 do very well with competitive distribution systems,  
20 and you do tend to move into a monopoly position with  
21 respect to that kind of thing in more direct sense  
22 than we have ever had in the railroad cases as a rule.  
23 The economist would say a natural monopoly which also  
24 renders an essential and indispensable public service  
25 is, No. 1, an industry affected by the public interest  
26 and, No. 2, one which is going to have to be subjected  
27 to some kind of regulatory control in the public  
28 interest. But, the matter shades along, as we were  
29 discussing yesterday with respect to the steel industry  
30 by comparison with the railroad industry. Certainly,





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this industry is affected by the public interest. We  
do not think it is affected by the public interest in  
that case yet so we have exercised no unusual controls  
over that industry.

6

THE CHAIRMAN: The definition of national  
interest would be more or less nebulous?

8

THE WITNESS: I think it is exceedingly  
nebulous because it is pointed at many different aspects.

10

MR. MAURO: Q. And I assume, Dr. Williams,  
that in the United States this national interest,  
nebulous as it may be to define, is determined in the  
final analysis by congress and the people having  
legislative authority in the various levels of govern-  
ment.

16

A. In the largest part supplemented by the  
fact that much basic law affects national interest be-  
cause there is a measure of interpretation at other  
levels.

20

Q. And you as an economist, from your brief,  
you were willing to leave the national interest as it  
exists in Canada to those agencies entrusted with it?

23

A. Yes.

24

Q. And in the United States I suppose a  
person with railroad experience does not have any greater  
authority than others to define what is in the national  
interest?

28

A. Oh, not at all. He would certainly be  
entitled to state his views of what the national interest  
may be and depending upon his experience he may be

30







1  
2 entitled to a pretty careful hearing.

3 Q. That is a democratic process.

4 A. Of course.

5 Q. On page 17086, still under cross-examina-  
6 tion by Mr. Sinclair, the following appears on the  
7 same matter:

8 "Q. You would agree that when passenger train  
9 service was profitable it assisted and  
10 contributed to the total transportation  
11 burden and thereby relieved that cost that  
12 was carried by freight?"

13 MR. SINCLAIR: The answer?

14 MR. MAURO:

15 "A. It did."

16 I am sorry. Now, it was not clear from your answer  
17 but did passenger services ever contribute to the  
18 freight, to the charges, the costs that should be carried  
19 by freight as such?

20 A. They did contribute certainly to the  
21 net revenues of our railway companies in the early 1920s  
22 and on a somewhat decreasing scale as we went through  
23 the 1920s and again temporarily during the second world  
24 war. At the same time our freight service was not  
25 in and of itself an unprofitable service, so that it  
26 would be hardly quite correct to say that the passenger  
27 service directly contributed to sustaining freight  
28 service but rather did contribute a quite nice share of  
29 railway net income in those periods.

30 At page 17088 we are still on this subject





1  
2 and my learned friend Mr. Sinclair says:

3 "Q. In view of that answer, may I say this  
4 to you: was it brought to your attention that  
5 there appeared before this Commission one of  
6 the most experienced industrial traffic  
7 managers in the country? Mr. George Paul  
8 is the name -- did they bring to your atten-  
9 tion the transcript of Mr. Paul's testimony?

10 "A. No, I have not seen it.

11 "Q. Well, Mr. Paul said at page 9937 of  
12 volume 54 that he would not object to freight  
13 contributing on a temporary basis until this  
14 passenger gap is adjusted -- I am paraphrasing  
15 him. Now, if a practical traffic ---

16 "Mr. Frawley: That is Swift & Company.

17 "Mr. Sinclair: Q. If a practical  
18 traffic manager in Canada would take that  
19 view, why would an economist from a foreign  
20 country disagree with it?

21 "A. Well, I do not think it makes any difference  
22 where the economist comes from."

23 I would like to refer to this most ex-  
24 perience industrial traffic manager in the country,  
25 Dr. Williams, and then ask you as a foreign economist  
26 whether perhaps you may be able to agree with some of  
27 the things that this experienced industrial traffic  
28 manager in Canada has to say on this matter of passenger  
29 burden. At page 9874 of Volume 54, Mr. Paul is being  
30 cross-examined by Mr. Cumming:







1  
2 "Q. Thank you, Mr. Paul. On page 5, in the  
3 first complete paragraph, you refer to the  
4 question of the revenue deficits incurred  
5 by passenger service, and on the next page,  
6 at the end of this branch of your submission,  
7 in the last sentence, you say:

8 'It is further recommended that the  
9 freight rate structure should not be  
10 burdened with these passenger deficits.'

11 Mr. Paul, if the passenger deficits --  
12 assuming that there are some, and it appears  
13 that there are -- are not to be met from  
14 freight revenues, and if passenger services  
15 are to be continued, what is your solution  
16 to that problem?

17 "A. Well, I do not think we have a solution for  
18 these two 'ifs', but we do not think that the  
19 general taxpayers should have to pay for  
20 services that are furnished in the passenger  
21 service. We think the people who use the  
22 service should pay for it, generally speaking

23 "Q. Just so that we can have the position  
24 clear, you do not want any passenger deficit  
25 carried by and creating a burden on the  
26 freight shipper, for instance?

27 "A. Correct.

28 "Q. That takes it out of that field?

29 "A. Yes.

30 "Q. And you do not suggest it be subsidized





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in any other way?

"A. No, we do not.

"Q. It should be on a purely self-sustaining basis if possible?

"A. Yes.

"Q. Does it follow from that that if it cannot pay its own way you would suggest it be abandoned?

"A. Well, as a last resort, yes.

"Q. This is not an area in which even as a last resort you would consider there ought to be any subsidy paid?

"A. No, but there may be situations whereby a contribution from the national treasury may be justified, and in that area I mean where the passenger service is maintained or retained for purposes of the army, say, or for national defence or some area like that, in which case, if as a matter of national policy we think that the railways should have to keep that service, then whatever expense there is with respect to that segment of it should be paid by the national treasury."

Then moving on to his cross-examination by myself at page 9913:

"Q. As to the passenger services, Mr. Paul, I see that your Association -- very correctly, in our view -- suggests that the freight rate structure should not be burdened with







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passenger deficits. I did not follow it completely, but I believe when you were questioned by Mr. Cumming you said that your Association did not support the idea of a subsidy to the railways for maintaining the services unless they were directly in the national interest?

"A. Yes, correct.

"Q. But if in fact railway management exercising their discretion wanted to abandon and applied for abandonment and proved the case, as far as revenue deficiency is concerned, and the Board of Transport Commissioners in their wisdom said, 'No; due to the public interest, you must maintain these deficit services' -- then your Association would support the idea of the compensation being paid the railways from the treasury?

"A. No, we do not go that far.

"Q. Could you tell me how far you go on that?

"A. We say it is up to the railways to investigate every possible avenue of economy, or even coordinating with each other to effect economies, and to reduce their operating costs, so that the service will be put on a paying basis.

"Commissioner Gobeil: The only exception you would make would be for national defence?

"The Witness: Or in other areas, Mr.





1  
2 Commissioner, like commuter services and  
3 others, in which case we say that those who  
4 benefit from the service should pay the  
5 deficit.

6 "The Chairman: The locality?

7 "The Witness: Yes, sir.

8 "Mr. Mauro: Q. That again is in  
9 complete accordance with the proposal put  
10 forward by the Province of Manitoba. We  
11 deemed the commuter services were more of  
12 a local or metropolitan problem and should  
13 be dealt with on that level, but on the  
14 national plane, national passenger services  
15 so deemed, if the railways were compelled to  
16 maintain these services at a deficit, and  
17 since the railways have only one source of  
18 revenue and that is freight traffic, if on the  
19 one hand we are going to remove the passenger  
20 deficits from the freight and still compel the  
21 railways to operate the services at a deficit,  
22 we are confronted with the problem of where  
23 they are going to get this money that they  
24 are compelled to expend. The only source  
25 we could consider, on the national plane, is  
26 the federal treasury, and that seems to be  
27 logical.

28 "A. I have mentioned one segment that we think  
29 the national treasury should stand if they  
30 want that service: that is, a national







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defence service. But we do not think the taxpayers even should be saddled with providing a service for others to use. We believe that all these services should be paid by the people who use the service.

"Q. And if they refuse to pay for them?

"A. Then the Board should allow abandonment.

"Q. And if the Board refuses abandonment on the basis that the line should be maintained in the public interest?

"A. Well, you are pinning me down with a great deal of 'ifs'. If in the national interest the Board decides it has to remain, then, if it is a national interest, it should be paid there."

Now, you as a foreign economist ---

MR. SINCLAIR: Will you add pages 9916 and 9917?

MR. MAURO: No.

MR. SINCLAIR: Of course, this is a position that I as a barrister must necessarily take, if my friend reads evidence to a witness I say if he is going to read evidence to a witness he should read it all, not only the part that deals with the subject he has to deal with, and when it comes to argument I can have my say.

MR. FRAWLEY: My friend is burdened by the fact that in the English system we have not any re-re-examination and he is endeavouring to get a little in





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as we go along.

MR. SINCLAIR: If I feel so inclined to protect my client's position I can ask for that kind of privilege from this Commission and I will not be short in doing so.

MR. FRAWLEY: You are asking the indulgence of the Commission?

MR. SINCLAIR: I certainly am; and after the indulgence they have extended to you I am sure they will give it to me.

THE CHAIRMAN: Well, having read that now, in view of the statement made by Mr. Sinclair we are inclined to indulge him.

MR. MAURO: What would you want in?

MR. SINCLAIR: I would like you to put in the whole story.

MR. MAURO: I am putting in what I think is germane to that particular question.

THE CHAIRMAN: We will wait for Mr. Sinclair to ask for an indulgence.

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MR. MAURO: Q. Dr. Williams, you, as a foreign economist, as Mr. Sinclair referred to you, being confronted with this statement from an experienced industrial traffic manager in Canada, can you, as a foreign economist, see anything in his statement that I have just read differing from the principle you have enunciated in your brief?

A. I don't think so. The only additional thing that appears is that he seems to be quite reluctant to face up to the ultimate of this problem.

Q. But on the essentials, as I understand them in your submission, Mr. Paul says he wants the burden removed from the shipper; you agree with that?

A. Yes.

Q. He wants deficit passenger services abandoned, and you agree with that?

A. Yes.

Q. And if they are determined to be in the national interest Mr. Paul says they should be met out of the national treasury and you agree with that?

A. That is essentially what I have suggested.

Q. I then turn to page 17099, still in the cross-examination by Mr. Sinclair:

"Q. Now, Dr. Williams, take a given railway that was built primarily for the movement of freight and freight is the major volume of traffic. Would you agree that the appropriate cost of passenger service on the railway should be developed on an





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avoidable cost basis?

"A. If we use the term the same, I would agree with you, yes.

"Q. Well, let me see if we do. When I use the term 'avoidable cost' I mean that it is inappropriate to ascribe to the service being costed a proportion of constant expenses?

"A. Well, I did not use it quite in that sense, although it may come to the same thing. I would define it as a question of comparing the costs of operating the present service with the passenger business in the picture, and the cost that you could anticipate would prevail when the passenger service had been eliminated.

"Q. Another way of putting it is that passenger train service should be costed on economic incremental costs? Correct?

"A. Essentially so, except since our question is whether the service ought to be abandoned or not we are looking at the downward study rather than the upward."

It was because of your qualifying your answer that it was attached to the service to be abandoned or not that I wanted to clarify for the Commission, that it seems to be acceptable that in abandonment cases there is a stipulated method of treating passenger losses on this incremental or economic basis. Might







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2 the method differ depending on the purpose for which  
3 the costing was being done?

4 A. I think the purpose for which you are  
5 seeking a cost may well have much to do with the way  
6 in which you have to calculate the cost. If, for  
7 example, your purpose is to ask the question, "What  
8 will be the effect of a 50 per cent increase in the  
9 volume of ~~our~~ freight traffic?", clearly an analysis  
10 of how costs will respond to a 50 per cent increase  
11 in the volume of traffic is going to be a rather  
12 different kind of animal, but the basic principles  
13 are not different. You are still trying to ascertain  
14 what will be the cost of handling 150 per cent of  
15 the present traffic as compared with the present situa-  
16 tion. In an abandonment case it seems to me the  
17 relevant economic question is -- and I think it is the  
18 relevant question both for the railroad and I would  
19 argue ought to be for the public body so far as  
20 economics alone governs the situation -- "What would  
21 be the position if this service were abandoned as  
22 compared with the present position?" In principle  
23 I think those are quite the same. The costs that  
24 will be affected, however, by anything so great as a  
25 50 per cent increase in the volume of traffic would  
26 include many items not affected by the shedding of  
27 a single passenger train service, let us say.

28 Q. At page 17121, a question by my  
29 learned friend Mr. Sinclair:

30 "A. Dr. Williams, the next point that I wish





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2 to put to you is this, that differential  
3 pricing by railways within the limits of  
4 variable cost as a floor, and the cost of  
5 an alternative mode of transportation as  
6 a ceiling, can give you no cause for com-  
7 plaint as resulting in misallocation of  
8 transportation resources?

9 "A. Well, I have never felt there was very much  
10 danger of it in a situation of that kind.

11 "Q. I suggest to you that measuring value of  
12 service by the cost of an alternative means  
13 of transportation is a reasonable method of  
14 measurement?

15 "A. Well, I wouldn't say that it is a reasonable  
16 method of measurement. It seems to me that  
17 it is the measure of the value of the service  
18 when we deal with a competitive situation  
19 where we have alternatives. I never  
20 thought it was a very reasonable method of  
21 the value of railway service back in the days  
22 when our Southern Pacific Company charged  
23 local rates in California at 15 cents a  
24 ton mile on the grounds that was the cost of  
25 wagoning over the road.

26 "Q. Well, if you are going to follow the allocation  
27 of transportation resources in a true economic  
28 way, that is exactly where you get, isn't it  
29 -- because, if the only alternative is the  
30 wagon ---







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2 "A. But this is one of the reasons why we  
3 introduced regulation of the railways in  
4 the first instance."

5 As I understand your position, Dr. Williams, it is  
6 that alternative means of themselves do not guarantee  
7 a complete safeguard against exorbitant rates?

8 A. Well, that I think is a question of  
9 fact. It certainly is true with us, that we still  
10 have substantial elements of traffic as to which there  
11 is no near substitute by another form of transportation  
12 that can be said really to exercise a controlling in-  
13 fluence upon the railroad rate structure so far as it  
14 relates to that kind of traffic.

15 Q. I want to read to you a statement that  
16 appears in the ~~submission~~ of the Province of Manitoba  
17 and which is part of the record, and it is a quotation  
18 of A. W. Currie, "Economics of Canadian Transportation",  
19 second edition, Toronto, 1959, and I am going to ask  
20 you when I have read the quotation whether or not a  
21 similar situation existed in the United States or does  
22 exist:

23 "The growth of the West was accompanied  
24 by the extension to lakehead of the com-  
25 petition between rail and water carriers  
26 which had existed for many years along the  
27 lower lakes and in the St. Lawrence River.  
28 In the early years of the 20th century  
29 rate cutting between the two transportation  
30 agencies apparently developed but about





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2 1908 they tacitly agreed that the rates  
3 by all-water or by rail-and-water should  
4 be a fixed differential below all-rail  
5 rates. In effect, they agreed on a  
6 'fair' division of the business to and from  
7 lakehead. There could 'be no doubt at  
8 all as to the efficiency of the waterways  
9 spread through eastern Canada from its  
10 easterly coast and terminating with the  
11 western limit of the most westerly division  
12 of the east -- at Port Arthur and Fort  
13 William.' Water competition forced re-  
14 ductions in rates between a great many  
15 centres in eastern Canada and on numerous  
16 commodities."

17 The point of interest from the point of view of the  
18 Commission and your position as an economist is that  
19 the two modes of transportation tacitly agreed to share  
20 traffic. Was there such a situation in the United  
21 States, or is there such a situation?

22 A. Yes, we certainly have had it. For  
23 example, the Southern Railway and Steamship Association,  
24 while it existed and worked in our southern territory,  
25 by its very name suggests it was an association made  
26 up of not only the principal railroads but also the  
27 competitive coastwise steamship lines, and a result of  
28 that association's endeavour was to produce a differen-  
29 tially related structure of rates. That is to say,  
30 the coastwise rates between the port cities were at







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2 a lower level in some effort to share in the business.  
3 It is a situation that has not uncommonly occurred in  
4 the past. We have at the present time, of course,  
5 prohibition in our Interstate Commerce Act -- I won't  
6 put it as "prohibition"; that is perhaps an incorrect  
7 way of saying it. We have, however, in our Bullwinkle  
8 amendment anti-trust exemption for carriers within a  
9 form to make rates cooperatively and jointly. We do  
10 not extend anti-trust exemption for two types of  
11 different forms to do this, so that where they are  
12 competitors, as in this kind of case, we would not  
13 now under our standards of law extend anti-trust  
14 exemption for it, but we have had many examples in  
15 the past where it has occurred.

16 Q. Therefore, as I read your submission,  
17 maximum rate control is also necessary even in a  
18 competitive situation where carriers might tacitly  
19 agree to maintain a rate structure?

20 A. Of course, I probably would not be quite  
21 prepared to define a situation where you had the  
22 tacit agreement as being fully competitive in the sense  
23 that we generally use the term. Although, if you do  
24 look at the situation you will find that there are  
25 competitive forces that will be reflected, for example,  
26 even in the activity of a rate bureau within a single  
27 form of transportation. They do come to have a  
28 reflection, but they don't take that full reflection  
29 that the economist implies when he uses the term  
30 "competitive" to describe the situation.





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MR. SINCLAIR: It is quite obvious -- you can see I have been talking to Commission counsel and to my other friends -- that this is not re-examination.

THE CHAIRMAN: Well, of course, Mr. Mauro brought it in by referring to page 17120.

MR. SINCLAIR: Well, Mr. Chairman, there is only one way you can bring it in, and these rules are well defined so that the different issues and different positions of the parties can be brought to the attention of the tribunal, and I must say to the Commission and to you, sir, that this is not re-examination, and therefore if this is going to be done there is no end to it, and I object to it.

MR. MAURO: I frankly don't think there is any merit to the objection at all.

MR. SINCLAIR: I feel this is something Commission counsel should speak to.

MR. COOPER: It is my view, certainly, the last question put by Mr. Mauro is not properly within the realm of re-examination, but it is for the Chairman of the Commission and the Commission themselves to determine whether they are going to be governed by the strict rules of evidence in a matter such as this and in an inquiry such as this, and it is my view that if the Chairman of the Commission and the Commission considers that it is not bound by the strict rules of evidence, then it is up to them to allow the question, and any questions, which will enable the Commission to get at the facts necessary to enable the Commission to







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come to a proper report.

THE CHAIRMAN: You are quite right legally, Mr. Cooper, and what we are anxious to do is to get all the facts, and we should not be limited.

MR. MAURO: Q. At page 17103, in discussion with my learned friend, you were discussing this matter of line abandonment. He read to you from page 35 of your paper, and the question appears:

"Q. Now, at page 35 of your paper, Dr. Williams, before this Commission, you point out that subsidies on uneconomic branch lines provide great difficulties in regard to the fixing of them and the administering of them. Then you go on to state that, 'a concerted effort to abandon mileage would be far more fruitful for the nation, and to the extent accomplished at least helpful to the railways.' Now, did you have in mind that one of the difficulties would be that once a subsidy was given, if it was, that rather than making the people requiring the service to be continued to pay for it, that the tendency would be that you would be unable to get rid of the uneconomic line?

"A. I had that very much in mind."

I think that is the essence of your answer. This inherent danger of subsidy is, in fact, inherent in any subsidy programme -- this danger that it might stay on after the evil it was meant to correct has been





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eliminated or should have been eliminated?

A. I think that is generally true unless you are dealing with quite extraordinary cases which you have reason to expect will be of a short-term type. Many of our subsidies in wartime situations tend to suffer from that quality, but unhappily, notwithstanding the fact that they ought not to, there is even in such a situation the risk that some manner of public pressure or accommodation to that subsidy will cause it to get extended and perhaps rejustified on other grounds. The risk is present, I think, unless there is some pretty absolute terminating factor present in the picture.

Q. And that would apply even if someone were to request a subsidy on a commodity as opposed to a branch line -- any subsidy in itself has that built-in danger?

A. It certainly does.

Q. And you, as an economist, would only recommend a subsidy where the national interest is greater than the potential danger?

A. I would certainly do so, and in the case of this discussion on the subsidizing of passenger services, for instance, this risk is quite obviously present there if you subsidize that service. There is always the risk that it becomes more or less difficult to reduce the service as time goes by. What I think it really comes down to is appraising that kind of risk on the one hand over against the risk on the other which, to me, is a very serious risk, and if





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you put that amount of burden into the freight rate structure you are, so long as that condition continues, cultivating and promoting a misallocation of transportation resources which is incapable of being cured in the long run.

Q. At 17152 Commissioner Anscomb asked you:

"Q. Doctor, would you like to tell us what you think in Canada -- and you are not in America now -- of a situation where you have got a large national railway that has 26 per cent of its total freight traffic tied up to a freight rate charge of over half a century ago?

"A. Well, I think that is a thing that ought to be looked at with a very keen and careful eye. My feeling has always been that it is undesirable to peg these things too sharply, and certainly that there ought to be procedures for flexibility and for re-examination. What the situation would be here, of course, would depend on facts that are not within my knowledge; that is to say, I would think that these rates require to be tested since they have been in force for such a long period of time without change, and in the light of changes in technology of railroading, changes in composition of traffic, changes in the value of money, and







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so on . . ."

Then you go on and say:

"But one could not say offhand merely from the fact they have been in effect for a long period of time that they are necessarily not satisfactory rates at the present time."

Knowing Commission Anscomb's interest in this matter, I wondered -- and you mentioned that you have nothing like the Crow's Nest Agreement or the statutory rates in the United States?

A. Yes.

Q. You also mentioned yesterday you have nothing quite like the C.P.R. in the United States?

A. Quite true.

Q. And you said the mere fact that a rate was established over fifty years ago does not, of that fact alone, make it a bad rate, and you referred to changes that would have to be considered: would those include such factors as increased loads and heavier trains and increased minimums?

A. Oh, certainly. There might well be a change in what we used to call the transportation condition -- certainly, the volume and density and the way in which the traffic flows; any of these factors, because ultimately they have an effect on the cost under which it can be moved.

Q. And it is in this context the matter should be reexamined for a complete appraisal?





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A. I think that is an inherent part of it.

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Q. Finally, I believe you agreed yesterday with Mr. Sinclair when he said at page 17125:

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"Q. Well, actually nobody has applied and governed transportation policies by economics in a sense that economics was the number one, and other considerations were lesser considerations?

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"A. I think that is correct.

11

"Q. And you would not advocate otherwise?

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"A. I do not think we can allow economics to take the whole stage when we have lots of other things to which some weight has to be given."

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I suggest it is in this context that you have made this submission on behalf of Manitoba and Alberta?

18

A. That is correct.

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MR. SINCLAIR: Which submission?

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21

MR. MAURO: The submission he has been speaking to for the last few days.

22

THE CHAIRMAN: You mean the whole?

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MR. MAURO: The whole submission. Now, Mr. Chairman, I would like to put on the record, since we are putting these things on the record, my objection to my learned friend's continual interference and conversations during my re-examination.

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MR. SINCLAIR: I am going to ask the indulgence of the Commission to deal with matters that have been raised as new matters in the examination conducted







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by my friend.

THE CHAIRMAN: What do you refer to?

MR. SINCLAIR: No. 1 is the question of the reading to the witness and asking him if he would agree with the explanation of the evidence on passenger that Mr. Paul gave.

THE CHAIRMAN: You mean to read all Mr. Paul's evidence?

MR. SINCLAIR: All that deals with those points -- two and a half pages.

The second question is to put to the witness, in the light of his answers, that he would agree that Mr. Paul who appeared before this Commission is just as objective in his approach to the problem as any economist from the United States. That is the second question arising out of my friend's questions.

The third point is the question of the dangers of subsidy, and to ask the witness in the light of what he said whether he would agree that the dangers are removed in great degree if the reason for the subsidy is clearly marked and designated and the dangers become very substantial if it is put in a basket and dealt with on an overall basis. Again, this arises out of these matters.

The next thing is on the matter of subsidy, that those who are responsible for the continuation of a service should -- and this would limit the dangers of it -- be made responsible for payment if that is at all possible.





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Williams, re-ex  
(Mauro)

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THE CHAIRMAN: Well, we will take a break

now.

---Short recess.





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THE CHAIRMAN: Order, please.

Gentlemen, on the points just raised by Mr. Sinclair, this is a Royal Commission. As such, we want to get at the facts. We want to be bound as reasonably as possible by the rules of evidence, but we have free latitude.

Now, on the objections by Mr. Sinclair, we think that he can read to the witness, not the whole, but parts of the evidence that he wishes of Mr. Paul. We do not think that he can ask the witness whether Mr. Paul is an objective witness and as to dangers of subsidy. That will all come up in argument some months hence.

MR. SINCLAIR: Very well, in light of the Commission's ruling I will not ask the witness any further questions but will put my submission to the Commission during my argument.

MR. BRAZIER: Mr. Chairman, as Mr. Sinclair rose, I was going to rise and ask the indulgence of the Commission. I do it on this basis: that Dr. Williams has favoured us with his opinion regarding transcontinental rates and various situations. I think there is just one situation that has been overlooked by all parties, and I would like to put to him that one last situation so the Commission would be fully advised as to his opinion on the whole situation.

THE CHAIRMAN: You have that privilege.

- 5 -







1 FURTHER CROSS-EXAMINATION BY MR. BRAZIER:

2 Q. Thank you. Dr. Williams, Mr. Mauro put  
3 the situation to you this morning of a producer at  
4 Toronto and Winnipeg and the railways meeting the market  
5 competition that exists at Vancouver. I have no quarrel  
6 with the answer at all that you gave him in that respect.  
7 I put the further situation to you if the competition  
8 which the railways are meeting at Vancouver is a carrier  
9 competition between Toronto and Vancouver, which carrier  
10 competition does not exist between Winnipeg and Vancouver,  
11 what would your opinion be?

12 A. I would think in that case that the  
13 distinction, which I believe we make in our own  
14 regulatory proceeding, is one that can be argued as  
15 having some persuasiveness.

16 We give, I think, greater force to carrier  
17 competition than we do to market competition. We would  
18 say, as a general rule, that a carrier may elect to  
19 meet carrier competition or he may elect not to meet it.  
20 That is the election of the carrier.

21 But if he does elect to meet it, then he must  
22 meet it from all points where it occurs with like force  
23 and vigour.

24 We have not, so far as I know, tried to couple  
25 a carrier competitive situation with a market  
26 competitive situation, and in consequence would not  
27 extend the requirement to places not competitive in the  
28 carrier sense. The reason for that, of course, is that  
29 we interpret the presence of carrier competition as being  
30 a quite different kind of a circumstance where it  
exists than exists at the non-competitive points in the





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carrier sense.

MR. BRAZIER: Thank you, Dr. Williams.

COMMISSIONER BALCH: May I be permitted to ask a question of Dr. Williams?

THE CHAIRMAN: Yes, certainly.

COMMISSIONER BALCH: Dr. Williams, have you any convictions in regard to the displacement of labour as a result of abandonment?

THE WITNESS: I have always felt with respect to that -- not as an economist, I suppose, but simply as a person -- that where there are displacements that occur as the result of economic changes, regardless of what may be responsible for those economic changes, it is not an unreasonable thing in the face of what may be a quite immediate, and, so far as the employees are concerned, an unforeseeable development, it is not unreasonable to make some provision for a reasonable period of adjustment -- that is, some manner of compensation that would take care of the resulting hardship.

That is a rule which we have often applied in various kinds of matters, coordinations, and sometimes in connection with our consolidation moves as well. I do not think that is a question, really, that an economist is entitled to any professional opinion about.

COMMISSIONER BALCH: Thank you.

THE CHAIRMAN: Thank you, Dr. Williams, very much.

THE WITNESS: Thank you, Mr. Chairman.







MERRILL J. ROBERTS, (Called)

DIRECT EXAMINATION BY MR. FRAWLEY:

Q. Mr. Roberts, you live in Pittsburg?

A. Yes, sir.

Q. And you are a professor of transportation at the University of Pittsburg?

A. I am.

Q. You are a Bachelor of Arts from the University of Minnesota; you are a Master of Business Administration, University of Chicago; and a Ph.D. from the University of Chicago. You have been, since 1958, professor of transportation, University of Pittsburg. From 1955 to 1958, professor of transportation and economics, University of Florida; and from 1951 to 1954, associate professor; and from 1948 to 1951, assistant professor.

From 1956 to 1957, you were visiting professor of Economics, Michigan State University; 1954 to 1955, associate professor of Transportation, University of California, Los Angeles.

You have been transportation economist with several agencies of the Federal Government of the United States, including the office of Price Administration, Bureau of Agricultural Economics, and the Tennessee Valley Authority (1940-1942 and 1946-1948).

From 1942 to 1946, you were on active duty with the United States Navy.

You have been consultant on transportation problems to business and government agencies, including





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2 Alachua County, Florida; Lockheed Aircraft Corporation,  
3 Florida; the Citizen's Tax Council, Michigan Development  
4 Commission, Ft. Meyers, Florida; Chamber of Commerce,  
5 United States Department of Agriculture, United States  
6 Department of Commerce, United States Department of the  
7 Army, Tennessee Valley Authority, General Services  
8 Administration, Government of Venezuela, United Research  
9 Inc., and other consulting firms.

10 You have presented expert testimony before the  
11 Interstate Commerce Commission and, by invitation, to  
12 U.S. Senate Committee on Interstate and Foreign Commerce.  
13 You are currently a member of the research staff,  
14 Commission on Money and Credit.

15 Your publications are as follows:

16 Books and Monographs:

17 Transportation of Grain to the Southeast via the  
18 Tennessee River, (Tennessee Valley Authority), 1943.

19  
20 Citrus Freight Rates; Development and Economic  
21 Appraisal (with T.C. Bigham), University of  
22 Florida Press), 1950.

23 Transportation: Principles and Problems, (with  
24 T.C. Bigham). (McGraw-Hill), 1952. (A standard  
25 text book in the field.)

26  
27 The World's Commercial Intercity Passenger Travel  
28 Markets, 1958-1973. (with M.D. Keenin and R.M.  
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11 Government Credit Aids to Transportation, (Completed  
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13 and Credit).

14 An Evaluation of Rate Regulation, (United States  
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17 "The Regulation of Transport Price Competition,"  
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24 Development," Proceedings, Transportation Study  
25 of the National Academy of Sciences, Woods Hole,  
26 Mass., August, 1960 (forthcoming).

27  
28 The record of what might be called your vital  
29 statistics that I have just read into the record was a  
30 correct statement?





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A. It was a correct statement, yes, sir.

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Now, Dr. Roberts, you were asked by me to give some consideration to the problem of maximum freight rate regulation?

6

A. I was, yes, sir.

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Q. Now, regarding the commitment that you undertook for me in my capacity as counsel for the Province of Alberta before this Commission, you did prepare a paper on maximum freight rate regulation?

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A. I did.

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Q. And you have that paper with you and it has been distributed to the Commission. I would ask you, Dr. Roberts, to proceed to present it to the Commission, which you can do by reading the whole of it or such parts of it as you think should be read.

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A. Maximum Freight Rate Regulation.

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Discrimination is the historical hallmark of transport pricing. Maintaining this system of rates requires some measure of monopoly power; with fully effective competition for all services discrimination would wither away as prices moved toward costs. Involving the use of monopoly powers to improve private financial positions at the expense of some buyers, discrimination requires special justification for social approval. The historical social sanction is found in the chronic underutilization of the heavy fixed investment in rail plant. With charges assessed on the basis of "ability to pay" or "what the traffic will bear" railroad rates reflect primarily differences in the







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2 demand for transportation and not in the cost of  
3 providing various services. Low rates are granted where  
4 necessary to induce purchases in economic quantities  
5 and high rates imposed when they will not discourage  
6 such purchases. The result is larger output and lower  
7 average unit cost than would be achieved with non-  
8 discriminatory prices. In theory all shippers (including  
9 those paying the high rates) benefit along with the  
10 railroads from this system.

11 This last proposition is crucial to my whole  
12 argument.

13 It is significant, however, that the assessment  
14 of relatively high and low rates is not a species of  
15 taxation based on ability to pay. Legitimate  
16 discrimination has its roots in economics and not in  
17 equity. Unless certain economic requirements are  
18 satisfied, the economy will be worse and not better  
19 off as a result of this pricing policy. Basically,  
20 discrimination must not exceed certain limits on either  
21 the lower or upper end of the scale. One requirement is  
22 that the low rates must not be "gratuitously low." Rates  
23 are most flagrantly faulty in this respect when they  
24 fail to cover the direct or out-of-pocket costs  
25 associated with providing the service. If it costs  
26 \$100,000 in resources to provide a block of service and  
27 the associated revenues are only \$80,000, it is apparent  
28 that a host of economic sins are committed. Outputs of  
29 the commodities are over-expanded at the expense of other  
30 resource uses and the entire economy suffers. For





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2 example, such rates -- that is unduly low rates, low  
3 cost, applied on aluminum would favor the use of this  
4 commodity over such substitutes as copper and steel.  
5 With the price at which it is sold not fully reflecting  
6 the values of the resources required for its use, its  
7 production would be over-extended at the expense of the  
8 substitutes, thus enhancing the cost to society of  
9 filling the requirements satisfied by these materials.  
10 Such pricing also occasions direct losses to the  
11 railroads which either impair earnings and further  
12 distort investment patterns by artificially restricting  
13 the flow of capital into this industry or, if they are  
14 recovered on other business, impose unjustifiable  
15 burdens on the affected shippers.

16       Upward discrimination refers to prices above  
17 average cost per unit of output (e.g. ton-mile) and  
18 downward discrimination to those which are below.  
19 Average costs, of course, are derived by dividing  
20 total costs by the number of units of output; a simple  
21 arithmetic process.

22       But upward discrimination is also unjustified  
23 if some rates are gratuitously low in a more subtle way  
24 by failing to provide as much overhead coverage as demand  
25 conditions permit. If in the above case the rate yielded  
26 \$110,000, it would provide a \$10,000 contribution to  
27 overhead. But if a higher price would yield \$115,000  
28 and a \$15,000 overhead contribution, the service is  
29 similarly underpriced and by not contributing according  
30 to its economic capability "casts a burden" on the







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2 traffic that is required to pay high rates. This does  
3 not mean that services are underpriced when they do  
4 not cover "full costs." Assume, for example, that the  
5 rate yielding \$115,000 is 90 cents per cwt. and that the  
6 full cost of this service, including a pro rata share  
7 of the overhead, is \$1.00. No one would gain if the  
8 rate were set at \$1.00 and traffic dropped off to  
9 produce a total yield of \$112,000. On the contrary, the  
10 \$1.00 rate would deplete net revenues and either injure  
11 the railroads' financial position or increase the  
12 required contribution from the high-rated traffic.

13         It is apparent that low rates are justified  
14 only if and because they contribute more to the support  
15 of the system than would higher ones and thus diminish  
16 the financial burden on other traffic. The basic social  
17 justification for discrimination is, therefore, that  
18 the high rates are less than they would be with non-  
19 discriminatory charges. It follows, therefore, that  
20 higher than average rates are unjustified if they  
21 exceed amounts dictated by the output and unit cost that  
22 would be associated with non-discriminatory rates.

23         This is my central theme. Perhaps, although  
24 the elaboration of this proposition is the central  
25 purpose of my statement, I should add a bit right here  
26 so we will not be left dangling, even momentarily.

27         Picture the rates under discrimination.  
28 Some will be above average cost and others will be below  
29 cost. If we hypothecate a system of uniform prices, or  
30 one without discrimination, the hypothetical traffic







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2 volume would presumably be reduced, since the low rates  
3 you uniquely stimulate traffic. In that event,  
4 average costs would be higher than under discrimination.

5 Any rates higher than this hypothetical level  
6 of average costs are the ones to be singled out in the  
7 test I propose. With this in mind, let me repeat the  
8 basic proposition: Higher than average rates are  
9 unjustified if they exceed amounts dictated by the  
10 output and unit cost that would be associated with non-  
11 discriminatory rates.

12 This principle provides an external test of  
13 rates that permits an objective assessment of appropriate  
14 rate ceilings and thereby breaks the "vicious circle"  
15 implicit in the comparative approach of present  
16 regulatory practice under which one high rate is  
17 justified by another.

18 We look at rate "A" and we say it is all  
19 right because it is no higher than rate "B", and we  
20 look at rate "B" and we say it is all right because it  
21 is no higher than rate "A". This is a circular kind of  
22 proposition and provides no real test.

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2 It should be emphasized that we are dealing  
3 with economic and not with legal concepts of  
4 discrimination. Accordingly, the tests of excessive  
5 discrimination considered here are unrelated to questions  
6 of specific injury to a competing producer. They are  
7 concerned with rate ceilings per se and thus with  
8 economic limits on rate differentiation that are  
9 relevant for the legal concepts of both undue  
10 discrimination (or prejudice) and unreasonableness.

11 It should be the task of regulators to develop  
12 the data and analyses which will permit within at least  
13 broad limits the determination of appropriate rate  
14 ceilings through external, objective measurement.

15 I might add parenthetically that the character  
16 of analysis and data that would be required are simply the  
17 same kinds of business enterprises themselves commonly  
18 employed or required in making rational pricing  
19 decisions, characteristics of markets and having some  
20 concepts of costs.

21 Such determinations are necessarily beyond  
22 the scope of this statement which is concerned  
23 primarily with the advocacy of principles. The  
24 principles can be clarified, however, by reference to  
25 empirical data relevant for assessing the output and  
26 cost effects of non-discriminatory rates. The analysis  
27 for such data not only serves to illustrate the  
28 principles advanced, but provides at least a general  
29 indication that many rates exceed the appropriate bounds  
30 of upward discrimination. Since different services are







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2 are not homogeneous but incur varying direct (or out-  
3 of-pocket) costs, discrimination is not eliminated by  
4 uniform charges per unit of output, but by a uniform  
5 relationship between rates and direct costs (or a  
6 uniform percentage "markup").

7 MR. FRAWLEY: In the terms of ordinary pricing  
8 concepts.

9 A. In the following discussion this is the  
10 meaning attached to the removal of discrimination and  
11 to references to "uniform pricing".

12 Perhaps a little elaboration would be in order.  
13 If we take a 200 mile shipment, for instance, of 100,000  
14 pounds of coal and a comparable shipment of 10,000 pounds  
15 of lamp shades over the same distance, the total cost of  
16 moving the two will be a little different. Because of  
17 the different rolling costs, perhaps for the lamp shades  
18 it will be in the order of ten times as great as the cost  
19 for the coal movement, say \$2.50 versus 25¢. Quite  
20 clearly discrimination would not be eliminated by  
21 charging the same rate for two shipments. Our  
22 discrimination would be absent if in each case the rate  
23 exceeded the service cost of the same percentage. There  
24 would be no discrimination, for instance, if the rates  
25 for each shipment exceeded these costs by, say, 20%  
26 or rates of \$3.30 over the two shipments; \$3.00 for the  
27 lamp shades and 30¢ for the coal. Now, there is  
28 discrimination, on the other hand, if a rate for lamp  
29 shades should be \$3.00 and the rate for coal 40¢. This  
30 is a definition we employ here and the standard





1  
2 measure of discrimination in economics theory.

3 Now turning to the second section I would  
4 like to interpolate also a disclaimer. I want to make  
5 it clear in the subsequent analysis advocating a  
6 system of uniform pricing. I do not propose that low  
7 rates be brought up to some average and all the high  
8 rates be reduced to that average. Really, what we are  
9 doing is to point out some indications or at least point  
10 directions of analysis to throw some light on the  
11 question as to what would happen to uniform costs if  
12 there be such a system of pricing.

13 Before dealing with some actual data it will  
14 be helpful to describe the principles involved by means  
15 of a simple illustration. In the following hypothetical  
16 case outputs and related unit costs are shown under both  
17 discrimination and uniform pricing (assuming for the  
18 moment that variable costs are identical for all  
19 services).  
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(1) Under discrimination

|                                    |                |
|------------------------------------|----------------|
| Fixed (constant) costs             | \$ 200,000     |
| Variable costs (at present output) | <u>800,000</u> |
| Total costs                        | \$ 1,000,000   |
| Units of output                    | 50,000,000     |
| Average variable cost per unit     | 1.6 cents      |
| Average fixed cost per unit        | .4 cents       |
| Average total cost per unit        | 2.0 cents      |

(2) Without discrimination

|                    |                |
|--------------------|----------------|
| Output             | 30,000,000     |
| Fixed costs        | \$ 200,000     |
| Variable costs     | <u>480,000</u> |
| Total costs        | \$ 680,000     |
| Average fixed cost | .67 cents      |
| Average total cost | 2.27 cents     |

For the moment we are dealing with the example we just gave, the prices between coal and lamp shades. Important in this example and throughout our entire analysis is the common definition between fixed and variable costs which separates costs into two categories. The fixed remain constant regardless of the amount of output and the other category of cost with changes in some very direct proportion with output. Running down the illustration here we have two sets of figures, the first under discrimination and the second, these costs without discrimination. Assuming in the example that







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2 the effect of the elimination of discrimination would  
3 be a return in the number of units sold. The result  
4 of the computations are that perhaps it will not be  
5 necessary to read all of the figures but the results  
6 are that with the 50 units of output ton miles, or  
7 whatever they may be, the average fixed cost per unit  
8 is .4 cents -- 4 mills. As a result of this reduction  
9 in output and the fact the fixed costs had not declined  
10 along with output you see in the next last line that the  
11 fixed portion of costs would rise from .40 cents to .67  
12 cents. On the other hand, we know also that the cost  
13 per unit, the variable cost per unit would stay the same  
14 at 1.6 cents. The overall result is, in the first case  
15 under discrimination that our 50 million units output,  
16 the average total cost would be 2 cents and in the  
17 second case without discrimination and the assumption  
18 of lower levels of output of 30 million unit output  
19 the cost come to 2.27 cents.

20 According to this illustration, the reduction  
21 in output resulting from non-discriminatory prices  
22 would increase fixed unit costs from .40 to .67 cents  
23 and total unit costs from 2.00 to 2.27 cents. All  
24 rates above 2.27 cents violate the basic rationale  
25 of this pricing system by assessing an unjustified  
26 burden of support since shippers paying more than this  
27 amount would be better off without discrimination.

28 MR. FRAWLEY: Before you leave that and for  
29 clarification, have you made it clear that you have  
30 made the assumption that without discrimination, that is





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under a system of uniform percentage mark-up over variable costs, that without discrimination you can assume a reduction in output.

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A. Well, this is, as I pointed out at the outset, is the only real social justification for discrimination that I can see. By assuming very low rates on certain types of commodities, their output, the number of units to be shipped will be acceptable beyond what it would otherwise be. These assumptions, if we can use the rather technical expression that we will have to deal with a little later, are quite elastic in other words. Generally, one would expect that the direction of traffic and the moving at the lower rates would be greater than the expansions of traffic that would occur from revising the higher rates. If the assumption is not valid then I think there is no case for discrimination at all and then I would be talking seriously about a uniform pricing system.

The application of the uniform-pricing rule in determining rate ceilings will first be illustrated by reference to the United States in order to take advantage of the analytical opportunities offered by more complete data than are available for Canada. Since United States experience is only suggestive and not fully relevant to the present issue, only general indications are provided without pursuing the refinements afforded by the data. A comparable discussion is then undertaken for Canada based on such data as are available and on applicable generalizations drawn from







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the analysis of United States conditions.

Cost studies of the I.C.C. Commission's staff indicate that at generally prevailing traffic densities costs are about 72 percent variable and 28 percent fixed.

MR. FRAWLEY: I was going to say if they were costs by this Commission neither you or I would know anything about them according to present rulings.

A. This means that for each \$1.00 of cost incurred, 28 cents is unrelated to output and constitutes the overhead or "burden." This element of cost would increase on a per unit basis with a decline in output. The behaviour of the out-of-pocket or variable portion of total costs is conjectural, but indications in the cost studies are that these outlays are unchanged per unit with changes in traffic.

MR. FRAWLEY: These variable costs are unchanged?

A. That is right. This behaviour will be adopted as a simplifying assumption in this analysis.

Based on these cost functions the following table measures the inflation in fixed cost per unit from a given percentage decline in traffic. It then indicates the resulting percentage increase in the average rate level that would be required to meet all costs including present overhead coverage. The last column translates the rate level increase into the corresponding uniform ratio of rates to out-of-pocket costs that would be required for full cost coverage where the average 1957 ratio was 139.





| 1  | 2 If traffic<br>declined<br>3 by<br>(percent) | Fixed cost per<br>unit would<br>increase by<br>(percent) | Total costs<br>would increase<br>by, and rates<br>would have to<br>increase by<br>(percent) | Producing an<br>average rate<br>out-of-pocket<br>cost ratio of |
|----|---|--|---|--|
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| 5  |   |  |   |  |
| 6  | 10  | 11   | 3   | 143  |
| 7  | 20  | 25   | 7   | 149  |
| 8  | 30  | 43   | 12  | 156  |
| 9  | 40  | 67   | 19  | 165  |
| 10 | 50  | 100  | 28  | 178  |
| 11 | 60  | 150  | 42  | 197  |
| 12 | 70  | 233  | 65  | 229  |
| 13 | 80  | 400  | 112   | 295  |
| 14 | 90  | 900  | 252   | 350  |

15 MR. FRAWLEY: This is a little unfortunate  
16 because you have begun to comment on the table before  
17 turning to the page where we see the table itself.

18 A. I plan to comment further on it.

19 Q. Even if you have to go back and repeat?

20 A. Yes.

21 THE CHAIRMAN: Is that the 1950 or 1956?

22 THE WITNESS: 1957. At the time I got the data  
23 this was the latest available. The 1958 data is now  
24 out but I do not think for our purposes it matters too  
25 much. I think perhaps a way to look at the table would  
26 be to pick out a figure and work across with it. We might  
27 take the 50%. In other words, according to the first  
28 column if traffic declined by 50% the fixed cost per unit  
29 would increase by 100 per cent but total unit cost and  
30 the average level of rates would have to increase by







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2 28% resulting in an increase in the average level of  
3 rates as indicated in the last column of 28% or  
4 bringing it from a ratio 139 in 1957 to the ratio 178  
5 shown in the last column. Perhaps for a little more  
6 detail ' about the figures we could take an  
7 example. Assuming now and still dealing with the  
8 50% decline in output here, let us say that variable  
9 costs per unit is 72¢. That would be 1,000 units of  
10 output. This would mean that the total variable costs  
11 would be \$720.00. Let us assume also that the fixed  
12 cost, the fixed element of cost is \$280.00 so  
13 combining the \$720.00 to the \$280.00 our total costs  
14 with a 1,000 units of output would be \$1,000.00. The  
15 fixed costs per unit would be 28¢, the total unit costs  
16 would quite clearly be \$1.00.

17 Q. Per unit?

18 A. Per unit. But assuming the output is  
19 cut in half, it means we would have 500 units of  
20 output instead of the 1,000 and variable costs per  
21 unit staying the same and 72¢ at our total variable costs  
22 then would be \$360.00 by definition. The fixed  
23 is the same and that will be \$280.00 and we add those  
24 together and have total costs of \$640.00. Dividing  
25 the \$640.00 by the new output level of 500 units, half  
26 of the former, we find that the total unit costs are  
27 now \$1.20. Quite clearly this is 28% greater than the  
28 initial of \$1.00. There we see again in the table at  
29 the cross-line starting with 50% reduction in traffic  
30 that fixed costs per unit would increase by 100%. As







1  
2 we saw in our illustration it would go from 28¢ in the  
3 first case to 56¢ in the second case. The total unit  
4 costs will increase by 28% as we saw, from \$1.00 to  
5 \$1.28 and if all the costs were to be recovered, the  
6 \$640.00 would entail the lower level on output a 28%  
7 expansion in the average level of charges. That 28%  
8 expansion in the overall level of charges, as I  
9 indicated earlier, takes us from an overall ratio of  
10 rates, the out-of-pocket costs of 139 to a revised  
11 ratio of 178.

12 Q.. You took the 139 from the Interstate  
13 Commerce Commission burden study for 1957?

14 A. Yes.

15 The indicated traffic and revenue effects of  
16 moving to any given uniform ratio of out-of-pocket  
17 costs depends upon the price elasticity of rail  
18 transport demand (the change in sales occasioned by a  
19 given change in price) in particular markets and by  
20 the distribution of total traffic volume in terms of  
21 revenue-cost ratios.

22 Q. Just looking for perhaps a simpler word,  
23 it might be responsiveness instead of elasticity.

24 A. Yes, I think it is a good synonym. I  
25 thought I might say a word about this if it would be  
26 desirable. If we take, for example, a 20% increase in  
27 price and output dropped sales -- a 20% increase in price  
28 sales, they will have to be 10%, this is a measure of  
29 elasticity.  
30





1  
2 On the other hand, if we have an increase in price of  
3 20 per cent and sales drop off by 40 per cent we have,  
4 in terms of Mr. Frawley's synonym a much more responsive  
5 situation. In other words, the more responsive sales  
6 are to changes in price the more elastic the situation.  
7 Quite clearly, the 40 per cent drop in sales and 20  
8 per cent increase in price indicates a far more elastic  
9 demand situation than would the 10 per cent drop off  
10 in sales with a 20 per cent increase in price. These  
11 two factors are, determining what would happen to  
12 output, and therefore unit costs, and again, the  
13 demand elasticity and the distribution of traffic over  
14 the entire range of these ratios of outputs to your  
15 costs. For example the second one, the distribution  
16 of traffic, determines the magnitude of the rate  
17 changes that would be involved in moving from existing  
18 rates to uniform prices; and the first, the elasticity,  
19 indicates the way traffic volume would respond to  
20 these changes.

21 The latter factor is associated with the  
22 former since it determines the percentage changes in  
23 price (both increases and decreases) which would  
24 be involved in moving to uniformity -- and again we  
25 are talking about a hypothetical shift -- at a given  
26 level. For example, output would be less seriously  
27 affected by the shift to uniformity if there are  
28 substantial blocks of traffic moving at relatively high  
29 rates that would be benefited by the assumed reduction  
30 (representing the effect of traffic distribution).







1

2 This would be particularly true if the reductions  
3 could be expected to occasion sharp increases in the  
4 movements of these commodities (representing the  
5 elasticity effect). On the other hand, large volumes  
6 in the lower reaches of rates where uniformity would  
7 involve substantially higher prices would enhance the  
8 output reduction, particularly if the associated demands  
9 are highly elastic (so that a given percentage increase  
10 in rates entails a disproportionate reduction in  
11 purchases or sales).

12 The traffic distribution is available from the  
13 waybill sample and revenue-contribution or burden  
14 studies. But since the elasticities are subject to  
15 conjecture at this state of transport market analysis,  
16 it is impossible to assess accurately the traffic  
17 effects of uniform pricing or the uniform level of  
18 rates which would permit full overhead coverage. But  
19 some general indications may be provided by selecting  
20 for analysis the possibility of achieving a traffic  
21 level 50 per cent of the present with rates uniformly  
22 set at 178 per cent of out-of-pocket cost. As  
23 indicated in our previous table this would be the rate  
24 level required.

25 On the surface, at least, it appears that the  
26 prospects of retaining half of present output with  
27 prices set uniformly at 178 per cent of out-of-pocket  
28 costs are not at all remote. According to the ICC  
29 waybill data, 1.1 billion ton-miles, or 25 per cent of  
30 the sample total, are produced at rates which exceed





1  
2 this level. (Computed from data in I.C.C., Bureau  
3 of Transport Economics and Statistics, Territorial  
4 Traffic and Revenue by Commodity Classes, Carload  
5 Waybill Statistics, 1957, Statement TD-1; and Distri-  
6 bution of Rail Revenue Contribution by Commodity Groups  
7 --1957, Statement 2-59.) This traffic nucleus by  
8 itself represents about half of the required output,  
9 and a reduction in these relatively high rates (which  
10 range up to over 400 per cent) to a level 178 per cent of  
11 out-of-pocket costs would occasion some expansion in  
12 this volume. We are saying that for the full cost  
13 coverage at this level of rates to retain 50 per cent  
14 of present output, we are saying we have here all of  
15 the traffic moving at rates higher than 178, we say  
16 we have one-half of the amount we are looking for, in  
17 effect. The reduction of these relatively high  
18 rates which range up to 400 per cent ---

19 Q. Of variable costs?

20 A. Of variable out-of-pocket costs to a  
21 level of 178 per cent on out-of-pocket costs would  
22 certainly occasion some expansion in this volume.  
23 The transport demands for many of these commodities  
24 were undoubtedly quite inelastic when the high rate  
25 patterns were established in the days of extensive rail-  
26 road monopoly, and reductions of the order contemplated  
27 here would have provided little stimulus to traffic.  
28 But many of these demands are undoubtedly now highly  
29 elastic in view of the heavy competitive inroads that  
30 have been made by highway transportation, and rate







1  
2 reductions would be much more fruitful in stimulating  
3 volume than was historically the case. The expansi-  
4 bility of this sector is indicated by the fact that as  
5 of 1954 (the latest year for which data are available)  
6 the railroads handled an overall average of only 28  
7 per cent of the total tonnage movement of the com-  
8 modities involved. (Computed from data in Bureau  
9 of Transport Economics and Statistics, Railroad Freight  
10 Tonnage Compared with Production, 1954.)

11 If you look at the waybill samples and take  
12 out all of the commodities moving at rates exceeding  
13 178 per cent and compare them with figures showing the  
14 total amount of tonnage of these particular commodities  
15 actually moving in commerce, the railways haul just  
16 28 per cent. The other 72 per cent is obviously being  
17 carried by some other means, and I suppose in these  
18 ranges of rates most likely by trucks.

19 The hypothetical level of rates should be  
20 competitively attractive in tapping the 72 per cent  
21 balance in this traffic reservoir; rates at 178 per  
22 cent of out-of-pocket costs would in 1957 have averaged  
23 2.2 cents per ton mile, well below the regulated  
24 truck average cost.

25 I suppose we could add truck costs generally  
26 and eliminate the qualification of regulated trucks.  
27 Dr. Williams introduced a figure of about four or  
28 four and a half cents per ton-mile in his statement.

29 The U. S. railroads' optimism in this  
30 regard is attested by the anticipated productivity







1  
2 of greater freedom to reduce competitive rates and  
3 is justified by the success often associated with  
4 reductions that have actually been made. It seems  
5 reasonable to conclude that much of the output re-  
6 quired to sustain present overhead coverage -- 50  
7 per cent of existing volume -- would be realized  
8 from the expansion of traffic presently moving at rates  
9 exceeding the 178 ratio.

10 Furthermore, substantial volumes of traffic  
11 moving at ratios less than 178 would be retained.  
12 This would be particularly true in the sector involving  
13 ratios between 139 and 178 where rates are above aver-  
14 age -- the average in 1937 was 139. In the I.C.C.  
15 waybill sample this sector included 880 million ton  
16 miles, distributed as indicated below. (Computed from  
17 data in I.C.C., Bureau of Transport Economic and  
18 Statistics, Territorial Traffic and Revenue by  
19 Commodity Classes, Carload Waybill Statistics, 1957,  
20 Statement TD-1; and Distribution of Rail Revenue  
21 Contribution by Commodity Groups -- 1957, Statement  
22 2-59.)  
23  
24  
25  
26  
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29  
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| Revenue<br>cost<br>ratio | Sample<br>ton miles<br>(million) | Average per-<br>centage in-<br>creased in<br>rates* | Retained<br>volume<br>(unitary<br>elasticity)<br>(million) |
|--------------------------|----------------------------------|---|--|
| 170-78                   | 134.1                            | 2   | 131.3  |
| 160-69                   | 133.1                            | 8   | 122.5  |
| 150-59                   | 113.1                            | 15  | 96.2   |
| 140-49                   | 498.6                            | 23  | 383.9  |
|                          | 879.9                            |   | 733.9  |

\*Computed by relating the mid-point value  
of the block to 178.

The first column shows a range of revenue cost ratios simply for convenience in tabulation. In other words, the table shows that traffic moving at rates having ratios of 170 to 178 -- that there were 134.1 ton miles of traffic in this category. Taking the mid-point of that interval as representative of the interval -- 178 -- it is 174. The average increase in rates assuming uniformity on this traffic would be -- the actual increase would be from ratios of 174 to 178, or two per cent, which is shown in the final column. The problem here is you can't in these conjecturally, at least, rough indications -- they might be retained under the hypothetical level of rates at 178 per cent of out-of-pocket costs, and we will comment on this last column in a minute.

Many of the transportation demands associated with these above-average rates would be inelastic. Generally this has been the case. The rates above







1  
2 average have been above average because their demands  
3 are inelastic. The indicated percentage rate  
4 increases would occasion a less than proportionate  
5 volume reduction. But if, conservatively, a propor-  
6 tionate volume drop is assumed, the traffic that would  
7 be retained with the rate increases shown for each ratio  
8 block amounts to 734 million sample ton miles. This  
9 total represents nearly three-fourths of that required  
10 beyond the assured amount in the ratio sector over 178.  
11 In other words, in this ratio sector for 178 we had  
12 1.1 billion ton miles. The total we are seeking here,  
13 if we can call it that, is 2.2 billion, leaving a  
14 gap of 1.1 billion. I am showing here this 700 million  
15 that we are dealing with here is about three-quarters  
16 of that gap, a gap which assumes, incidentally, there  
17 would be no expansion from the reduction of the high  
18 rates to a level of 178 per cent of out-of-pocket  
19 costs. In addition, although the demands in many  
20 cases would be highly elastic, some of the vast  
21 volume -- nearly 60 per cent of the total -- moving at  
22 ratios less than 139 would continue to move at higher  
23 rates.

24 Although not of course conclusive, the fore-  
25 going considerations strongly suggest that with rates  
26 uniformly established at a ratio of 178 traffic volume  
27 could be sustained at a level required to support  
28 present overhead coverage. But even if it should  
29 fall a little short so that average cost -- including  
30 overhead -- would rise somewhat above the level





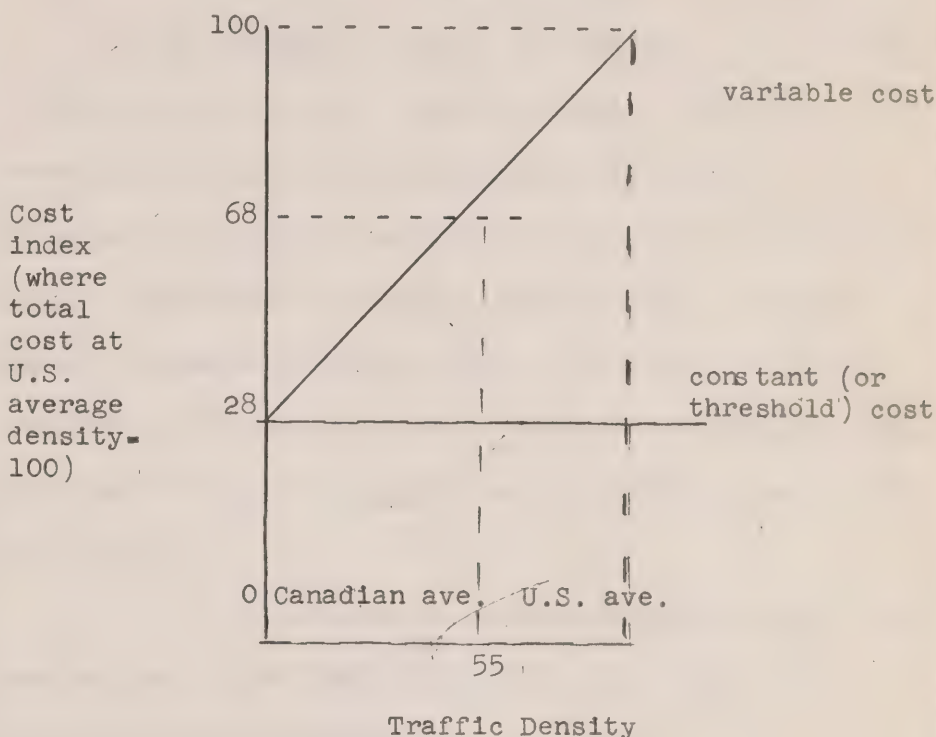
1  
2 associated with the 178 ratio, these considerations  
3 call into serious question present rates at levels  
4 substantially exceeding this ratio. This would cer-  
5 tainly appear to be true of rates running over double  
6 out-of-pocket costs.

7           Since the distribution of traffic in  
8 terms of revenue-cost ratios is not available for  
9 Canada, comparable indications of the potential effect  
10 of uniform rates on traffic and unit costs cannot be  
11 supplied. However, some general observations may be  
12 offered. As previously indicated, a highly critical  
13 factor in the application of the uniform pricing test  
14 in the determination of rate ceilings is the character  
15 of cost functions and the proportion of constant  
16 costs. Although the results of cost studies which  
17 show per cent variability have not been made public,  
18 it is probable that fixed costs are a larger share of  
19 the total in Canada than in the United States. This  
20 expectation is derived from a consideration of  
21 comparative traffic densities. While Canadian roads  
22 moved 3.6 million gross ton miles per mile of road  
23 operated in 1958, the United States figure was  
24 6.5 million gross ton miles. Accordingly, Canadian  
25 traffic density was only 55 per cent of the United  
26 States average. Some indication of the significance  
27 of this difference can be supplied by reference to the  
28 I.C.C. cost studies which determine the degree of  
29 constancy by cross-section analysis -- comparing the  
30 costs of lines with varying densities. The





relationship between density and cost components is portrayed in simplified form in the following chart:



We are dealing here in relatives where United States experience is 100, and we are attempting now to relate on a percentage basis the United States empirical data with some probable or possible conjectural figures for Canada. In other words, on the horizontal axis we have the figure 100 which represents the average traffic density in the United States. We have two cost lines. Perhaps it may be best to explain this by putting in, either mentally or actually, a number of dots around it.

THE CHAIRMAN: Well, we can have the explanation after lunch.

---Luncheon adjournment.







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-- On resuming at 2 p.m.

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THE CHAIRMAN: Order, please. Mr. Frawley?

5

MR. FRAWLEY: Before we continue, Dr. Roberts,

6

I just wanted to call the Commission's attention to

7

something. In this document called "Federal

8

Transportation Policy and Program" issued by the United

9

States Department of Commerce, March, 1960, to which

10

liberal reference has been made, I observe on page 32

11

that one of the reports prepared for the transportation

12

study was one by M.J. Roberts on the "Evaluation of rate

13

Regulation".

14

Q. You are the M.J. Roberts who prepared that

15

memorandum for the study which was made under the

16

direction of Dr. Williams?

17

A. That is right, yes.

18

Q. Now, continuing with the presentation of

19

your brief, Dr. Roberts, unless you had any further

20

statement to make, we were at page 12, and you had

21

reached the point where the chart is now a part of the

22

transcript, and visualizing the chart as though it were

23

perhaps on a blackboard, would you now explain the chart

24

to the Commission?

25

A. I will do my best.

26

First of all, it might be well, after the

27

recess, to reiterate that the analysis that we are going

28

through here now is not designed to advocate a system

29

of uniform pricing, but again I want to insist, simply

30

to determine a way to apply what would appear to be a





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valid theoretical economic test of the upper limits of discrimination.

3

4

Q. A valid economic test of the upper limits of discrimination?

5

6

A. Yes.

7

8

9

10

11

Q. You are seeking to explore that subject and to make certain recommendations with respect to the kind of test which you think would be a more valid one for the examination of the upper reaches of discrimination?

12

A. Right.

13

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Q. And when you use discrimination, I think you made it clear, you are not talking about discrimination in the legal sense; you are not talking about unlawful discrimination; you are talking about discrimination in the economic sense in that there is discrimination in the price structure -- certain commodities being hauled at low rates, and others at less low rates, and others at high rates?

21

22

23

A. Yes, or more specifically, at rates low relative to their costs; and other commodities at higher than their costs.

24

THE CHAIRMAN: That, you think, is inevitable?

25

26

27

28

THE WITNESS: I would not say it is inevitable, sir. I think it is, with the cost structure the railroads have, desirable and serving a good social purpose when kept within the bounds that we are speaking of here.

29

30

MR. FRAWLEY: Q. In other words, you have made it clear and will make it clear that you do not







1

2

hope to eliminate discrimination from the freight rate structure?

3

4

A. Right.

5

6

Q. You feel that the shippers and the receivers must live with a certain amount of discrimination in the freight rate structure?

7

8

A. That is right.

9

THE CHAIRMAN: There must be discrimination?

10

11

THE WITNESS: That is correct, so long as it passes this test, that everybody gains from it. Even

12

those paying relatively high rates are better off than they would be if they had no discrimination.

13

14

MR. FRAWLEY: Q. If it passes that test, then it is acceptable?

15

16

A. That is right, exactly.

17

18

Turning now to this over-simplified, perhaps, but still relatively formidable picture on page 12, I was suggesting before the intermission that we might picture this as embracing the cost output relationship for a number of firms which might be represented on the chart by a number of dots on either side of this sloping line, but clustered rather closely about it.

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In other words, what this sloping line does is to describe a general picture of the relationships observed in the United States in post-war periods, the relationship between the relative level of traffic density to their total costs. It is saying, in effect, that if a company has a higher number of ton miles per mile of line the chances are, as displayed by the





1  
2 sloping line, it will have higher total costs. And  
3 this line describes some of the relationships between  
4 total cost and that traffic density.

5 Looking, now, at this horizontal scale, at  
6 100 we have the pattern of cost in the United States  
7 at the prevailing post-war average traffic densities.  
8 This reflects the proposition that we mentioned  
9 previously that at that level 28% of the costs are  
10 constant, as you can see, and the balance are those  
11 that are associated with variability or vary with  
12 output.

13 Q. That is 72%?

14 A. 72%, that is right.

15 Quite clearly, this percentage relationship  
16 between constant and variable costs or between constant  
17 and total costs will not prevail at other traffic  
18 densities. If you have a lower traffic density, which  
19 would be represented by observing the relationship at  
20 some point to the rate of 100, and the constant element  
21 by definition stays the same, the variable component  
22 by definition changes quite clearly, the percentage  
23 relationship between the two will have to change.

24 As we pointed out above, the Canadian traffic  
25 density in 1958 approximates 55% of the United States  
26 traffic density. What we are doing here now to try to  
27 get some reasonable picture of the percentage of  
28 constancy or variability in Canadian costs is really to  
29 pretend that the Canadian railroad system is represented  
30 in this chart, and that one of the dots in there --







1  
2 the imaginary dots we put in -- is the Canadian railroad  
3 system.

4 If we do that, that would fall at 55, the  
5 point at 55 on the horizontal line.

6 Again, as I said, we are dealing in relatives,  
7 taking the United States average density as 100, the  
8 Canadian average density then would be 55.

9 The problem, then, is simply to determine  
10 what the percentage relationship between constant and  
11 total costs would be at that density level.

12 At that point, we have 28, being constant,  
13 and the total in relative terms, instead of being 100,  
14 at the United States average density of 100, instead of  
15 being 100 on the vertical axis is 68.

16 The percentage level between 28 and 68 is 40%.

17 Well, I will continue to read and perhaps  
18 repeat some of the things I have just said.

19 At the average United States density, 100 on  
20 the horizontal scale, the constant portion is 28 percent  
21 of total costs. The Canadian system would fall at 55  
22 on this scale. With the variable portion of cost  
23 assuming a linear function, that is being a straight  
24 line, the total cost at this point can be interpolated  
25 at 68 percent of the total at United States average  
26 density. At this output level 28 of the 68 percentage  
27 points are constant, indicating a constant portion of  
28 about 40 percent in Canada. Although this analysis  
29 does not purport to provide a definitive measure of  
30 Canadian cost variability, the technological and







operating similarity in the two countries should permit interpolation yielding results reasonably adequate for the comparative and illustrative purposes for which they are employed.

Basically, I am simply suggesting the very strong indications that the constant percentage of total costs would be higher in Canada than in the United States.

From this estimate of the constant percentage of total railroad costs at the Canadian density level it is possible to construct a table showing, as the table on page 7 does for the United States, the general effect on total costs and rate levels of output declines that might be associated with uniform pricing.

|                                     | (2)  | (3)  |
|-------------------------------------|--|--|
| If traffic declined<br>by (percent) | Fixed costs per unit<br>would increase by<br>(percent) | Average rate<br>level would<br>have to<br>increase by<br>(percent) |
| 10                                  | 10   | 4  |
| 20                                  | 25   | 10   |
| 30                                  | 42   | 17   |
| 40                                  | 67   | 27   |
| 50                                  | 100  | 40   |
| 60                                  | 150  | 60   |
| 70                                  | 233  | 93   |
| 80                                  | 400  | 160  |
| 90                                  | 900  | 360  |





1  
2 I suspect it perhaps would not be necessary  
3 to repeat the derivation of the figures in this table.  
4 They are done the same way as in the previous one.

5 Q. As you say, in the text this table on page  
6 11 is the Canadian counterpart of the table on page 7,  
7 which was founded upon the data obtained from the  
8 Interstate Commerce Commission burden study?

9 A. Yes, that is right. In this case, we  
10 are substituting a constant ratio of 40%, whereas the  
11 other table reflects a constant ratio of 28%.

12 We will, however, make some comparisons  
13 between the two tables.

14 Comparing this table with the corresponding  
15 formulation for the United States indicates that the  
16 effect of the lower traffic density is to enhance the  
17 impact on fixed and total unit costs of a given  
18 percentage decline in output. For example, a 50  
19 percent reduction in traffic was associated with a 28  
20 percent unit cost increase in the United States  
21 analysis, but with a 40 percent increase in the  
22 present case. The higher percent of constant cost  
23 means that a given percentage output restriction would  
24 have a greater effect on unit costs -- that is increasing  
25 them by more -- and require a relatively higher level  
26 of rates to cover costs in Canada.

27 In view of the density difference it is  
28 probable that the application of the uniform pricing  
29 test would dictate relatively higher ceilings and more  
30 legitimate upward discrimination in Canada than in the







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United States. When translated into total unit cost and associated rate level effects, however, the difference in percentage of constant cost is dampened down considerably and is actually rather modest as indicated below.



If traffic in both countries declined by (percent)

(1)

The index of total unit costs (with present costs as 100)

In the United States would be

(2)

In Canada

(3)

And the Canadian index would bear the following percentage relationship to the United States Index

(4)

|    |     |     |     |
|----|-----|-----|-----|
| 10 | 103 | 104 | 101 |
| 20 | 107 | 110 | 103 |
| 30 | 112 | 117 | 104 |
| 40 | 119 | 127 | 107 |
| 50 | 128 | 140 | 109 |
| 60 | 142 | 163 | 115 |
| 70 | 165 | 193 | 117 |
| 80 | 212 | 260 | 123 |
| 90 | 352 | 460 | 130 |





1  
2 This brings the two tables together, in effect;  
3 that is, the relevant and significant element of the two  
4 tables we have just referred to.

5 Looking again at the first column at potential  
6 hypothetical declines in traffic from whatever cause;  
7 the second two columns rather go together, one applying  
8 to the United States and one to Canada.

9 Q. Let us call them 1, 2, 3 and 4?

10 A. All right.

11 Q. 2 and 3, then, go together; column 2 applying  
12 to the United States and column 3 to Canada.

13 If the term "index" is bothersome, we might  
14 revise the heading covering the second and third columns  
15 to read something like this:

16 "With present costs as 100, total unit costs  
17 would be".

18 Q. Yes?

19 A. Then, bring together again the cost effects  
20 of the table on page 7 applying to the United States and  
21 the one on page 13 applying to Canada.

22 Q. Just for simplicity, you are revising the  
23 wording of the heading of columns 2 and 3 to read:

24 "With present costs taken as 100, total unit  
25 costs would be"

26 In the United States, the figures in column 2;  
27 in Canada, the figures in column 3?

28 A. Right.

29 Just picking out the 50%, again, since we have  
30 used that as an example, we see in the United States that







1  
2 a decline of 50% of output or volume unit costs would be  
3 at the rate of 128% or at a level of 28% above the  
4 beginning level or the base level, whereas, as we pointed  
5 out, in Canada the corresponding figure would be 140 or  
6 a 40% inflation in unit costs.

7 In the final column, column 4 --

8 Q. Would you suggest some revision in the  
9 language of the caption of column 4?

10 A. The word "index" can be eliminated by this  
11 language:

12 "And the increase in total costs in Canada would  
13 bear the following percentage relationship to  
14 the increase in total cost in the United  
15 States".

16 Following through, then, on column 4 at the  
17 level of 50% in the first column you see a figure of 109?

18 Q. Yes?

19 A. This is saying that if output in both  
20 countries were reduced by 50%, the data we have employed  
21 would suggest that the effect on total unit costs would  
22 be such that the level would be increased 9% more in  
23 Canada than in the United States.

24 Q. As a matter of arithmetic, 140 in column  
25 3 is simply 109% of 128 in column 2?

26 A. Right.

27 Q. Now, again, Dr. Roberts -- and I certainly  
28 do not want to be repetitious, and I am only asking you  
29 to do this in the interest of clarity -- would you just  
30 say again why column 1 assumes for the purpose of the





1

2 table and the illustration various declines in traffic?

3 A. Well, I think it is perhaps not quite  
4 precise to say that table 1 assumes it. It is maybe a  
5 distinction. I am simply saying if traffic were to  
6 decline by these given percentages for whatever reason --  
7 business depressions; secular upward movements in traffic,  
8 for any reason -- in the long run, these would be the  
9 effects. Quite clearly, the context in which we are  
10 discussing this is considered the possible effects of  
11 a hypothetical system of uniform pricing with the  
12 assumption that there would be some decline in output if  
13 low rates that presently stimulate movement were increased  
14 to this uniform level.

15 Q. Again, Dr. Roberts, you are talking about  
16 and discussing and analyzing the effects of uniform  
17 pricing for the purpose of submitting to the Commission  
18 a test of reasonableness other than the traditional test  
19 which you have described comes about through circular  
20 reasoning that is presently in vogue, both in Canada and  
21 in the United States?

22 A. That is right.

23 Q. I only say that, Mr. Chairman, so as to  
24 keep clear as we go along the distinction we are anxious  
25 to put before the Commission.

26 Then, continuing at the bottom of page 14, Dr.  
27 Roberts?

28 A. Again, as I return to the formal statement,  
29 I will probably repeat some things.

30 These relationships suggest, for example, that







1  
2 if traffic were cut in half in each case, \$1.00 of costs  
3 would become \$1.28 in the United States and \$1.40 in  
4 Canada. In other terms, a traffic cut, that is, of 50%  
5 would entail a unit-cost increase and an average rate-  
6 level increase 9 percent greater in Canada than in the  
7 United States. As indicated by the tabulation, the  
8 comparative impact on total unit cost increases  
9 progressively with designated traffic reduction. With  
10 a 10 percent drop the total unit cost effect is only one  
11 percent greater in Canada, but with a 90 percent decline  
12 it rises to 30 percent.

13           Insofar as cost-structures, as represented by  
14 the percentage of constancy we have observed, are a  
15 determinant (along with demand elasticity, or the response  
16 of traffic to rate changes and traffic distribution; that  
17 is, in terms of the ratio of revenue to out-of-pocket  
18 costs), the legitimate range of upward discrimination may  
19 not be far different in Canada than in the United States.  
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1  
2 In the latter case revenue-cost ratios range up  
3 to levels that more than double a ratio that might  
4 well constitute a ceiling under the uniform pricing  
5 test. Although direct data are lacking for Canada,  
6 some indication of the degree of discrimination is  
7 provided by comparative car-mile revenues. While  
8 an imperfect indicator for this purpose, some of the  
9 ambiguity in this measure can be reduced by stating  
10 the car-mile receipts for particular movements as a  
11 ratio of the average revenue for each distance in  
12 order to reflect the normal taper in rate scales and  
13 to neutralize the terminal factor.

14 Q. Let me take you back two sentences,  
15 the second sentence in the first paragraph:

16 "In the latter case revenue-cost ratios  
17 range up to levels that more than double  
18 a ratio that might well constitute a  
19 ceiling under the uniform pricing test."

20 Would it help, do you think, if you stopped to just  
21 indicate what is meant by the uniform pricing test?  
22 Perhaps I should say again indicate what you mean  
23 by the uniform pricing test.

24 A. Well, we started out with the premise  
25 that all social justification of interests should be  
26 benefited by discrimination. This is true only if  
27 those shippers who pay high rates are also benefited  
28 and the only way they are benefited by discrimination  
29 is if their rates are relatively high in the area,  
30 all rates under discrimination, they are still less





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2 than they would be if there were no discrimination.  
3 That is, that the level of output and the resulting  
4 level of unit cost that we have associated with the  
5 accounting pricing situation that did not permit dis-  
6 crimination. Quite clearly this depends on contemplated  
7 or hypothetical -- perhaps contemplated is better --  
8 contemplated levels of output with a system of uniform  
9 pricing. What we did with our analysis was to just  
10 take 50 per cent and say what are the chances in the  
11 United States, that if we had a system of uniform pricing  
12 the output of the railways would maintain would be 50  
13 per cent of the present we suggest that as a  
14 reasonable possibility that this level of possibility  
15 might well be retained in which case unit costs would  
16 increase by and large by such a measure that an average  
17 rate return would have to increase from the ratio of  
18 139 per cent of out-of-pocket cost to 178 per cent of  
19 out-of-pocket cost. I am simply saying if we take  
20 this as some indication, this may be true of the United  
21 States, then perhaps a rate of ceiling of 200 per cent  
22 of out-of-pocket cost might be indicated. In places  
23 in the United States we have them going to 400 per  
24 cent of out-of-pocket costs. In the sentence you  
25 referred to there would then be rates that certainly  
26 doubled, and perhaps more than doubled, the ratio that  
27 might constitute a ceiling under this uniform pricing  
28 test.

29 Q. Perhaps you should re-read it.

30 A. Yes. We are speaking of employing







1  
2 revenues as a rough indicator in the absence of better  
3 data of the degree of discrimination and suggesting  
4 that today it is necessary to, in effect, neutralize  
5 the distance factor. That is, it would make little  
6 sense to confirm a car-mile revenue because of the  
7 terminal factor and the ordinary taper in rate scales,  
8 to compare car mile revenues for a 100-mile haul with  
9 a 2000-mile haul. The car mile revenue ratios we  
10 are dealing with somewhat reflect the ratio between  
11 the actual car mile revenues for a particular movement  
12 and some norm or standard or average as a whole for  
13 the distance.

14 Q. Speaking of the unavailability of data,  
15 did you endeavour to obtain data which would have  
16 enabled you to have -- did you endeavour to obtain  
17 data in Canada of the kind that is available to you  
18 in the United States?

19 A. I certainly did.

20 Q. And you made a special trip to Ottawa  
21 for that purpose?

22 A. Yes.

23 Q. You visited the offices of the Board of  
24 Transport Commissioners?

25 A. Yes.

26 Q. And the offices of the Dominion Bureau  
27 of Statistics?

28 A. Yes.

29 Q. And you were searching for what kind of  
30 data?





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A. Well, basically the ideal data would have been the revenue out-of-pocket cost ratios.

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Q. In other words, the data that is provided in what has come to be known as the burden studies, and you did not find them, and in the absence of that you have resorted to the use of the car mile revenue?

8

A. Yes.

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Q. As a relatively crude indicator of the data we are looking for?

11

THE CHAIRMAN: Did you try the railways?

12

MR. FRAWLEY: I might answer that question -

13

I did.

14

THE CHAIRMAN: Did he?

15

MR. FRAWLEY: No, he did not. I would like

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to make it very clear that I felt it would be a com-

17

pletely futile endeavour and if it would not have been

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I would have been the first one to express my amazement

19

and delight. At the same time, if Dr. Roberts could

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have obtained from the Canadian Pacific or the Canadian

21

National the burden study data -- it just did not seem

22

logical to me after having fought so hard in February

23

to obtain that data from the railways ---

24

THE CHAIRMAN: Well, we have the statement

25

from the witness.

26

MR. SINCLAIR: I would like to say, if I

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may at this time, this seems to be coming up quite a

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few times in the last two or three days, that the

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position in Canada is markedly different for the fol-

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lowing reasons:







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1. There are only two railways.

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2. We have a mixed railway economy, to use the phrase that has been kicked around here once or twice, that means we have a private enterprise and a nationalized enterprise in the railway business handling 90 per cent of the total transportation by rail in Canada.

3. We have no minimum control of truck rates.

4. We have no control of a great part of the water competition -- we have control of some, we have different legislation, and the situation is entirely different.

Lastly, but notwithstanding the views of the economists and the views of statisticians from the United States, it was the position of the railways that this material was not reliable enough to justify the expense of preparing it.

THE CHAIRMAN: We heard about that a few months ago.

MR. SINCLAIR: Yes. The point I think which has been overlooked is the very marked difference in circumstances. It is quite easy to understand why a railroad in the United States is not going to be too concerned with area costs. For instance, in the eastern district of the United States it does not give shippers what the situation would be in Canada if comparable information was provided and it will be hoped it would never do this because the Rail Form A





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2 is, in technique, years behind the times. Now, great  
3 advances have been made in costing and Rail Form A and  
4 our information does not properly reflect it. The  
5 Commission can disagree with that submission and say  
6 Form A is perfect enough for definitive judgement to be  
7 made on. This is our position; we in the railways,  
8 Canadian Pacific, and just speaking for them, did make  
9 clear to the Commission that the costing material we had  
10 and the data that we had we would be prepared to make  
11 available to the regulatory tribunal on the understanding  
12 that it would not be allowed outside because of commer-  
13 cial disabilities, not only within the industry but  
14 within the two competitors in the rail industry itself.

15 THE CHAIRMAN: In any event, Dr. Roberts did  
16 not have any.

17 MR. FRAWLEY: If I may be allowed, I thought  
18 that I would at least indicate that Dr. Roberts had  
19 tried to get some information. He came -- I suggested  
20 he come at my expense to Ottawa to see what he could  
21 get. He came and I thought it would be interesting  
22 for the Commission to know he endeavoured to get it.  
23 That is all I wanted to say.

24 MR. SINCLAIR: He could not have got it  
25 from the railways, in any event.

26 MR. FRAWLEY: Thank you very much.

27 MR. SINCLAIR: For the reasons I have out-  
28 lined.

29 MR. FRAWLEY: Now that you have said that  
30 let me say something. Mr. Chairman, when you asked me





1  
2 if he had gone to the railroads I wanted to give you  
3 an answer and in answer to that question my friend  
4 rose and said what he had to say and I wanted to say  
5 with the greatest respect to this Commission that if  
6 we find as a result of the deliberations of this  
7 Commission and its report to the Governor in Council  
8 that we do not have more evidence and cost data to  
9 the Board of Transport Commissioners economic and  
10 accounting section than we have had, then, with the  
11 greatest of respect, I say the shippers and receivers  
12 all over Canada will be tremendously disappointed.  
13 That is all I have to say.

14 THE CHAIRMAN: Well, Dr. Roberts did not  
15 have it.

16 MR. FRAWLEY: If Rail Form A is intact, let  
17 us have the Stetchishin solution with multiple  
18 regression and all the embellishments, but let us have  
19 some kind of cost data flowing in as a routine matter  
20 to the Board of Transport Commissioners. I hope that  
21 will not result in putting the Canadian Pacific out  
22 of business as my friend is almost saying.

23 THE WITNESS: There is a reference to  
24 Appendix I which I do not think requires elaboration.  
25 It simply shows for varying distance blocks the average  
26 car mile revenues realized by all traffic in that block.  
27 I was simply calling attention to what it is and I  
28 believe it is not necessary to go through the data  
29 unless you feel otherwise.

30 MR. FRAWLEY: Q. I would like the record







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to be clear and if it does not speak for itself -- it speaks for itself in so far as numbers are concerned, but if it does not speak for itself as far as the method used to obtain the figures then probably a word would be helpful.

A. The method is shown on page 27.

Q. I was overlooking that. Probably with those notes on page 27 you could quite disregard the last question.

A. Very well. These ratios have all of the traffic shown in the waybill sample for 1958 for commodity class and province by province covering a very broad range, varying from .3 to well over 300. While they must be treated with some caution because of the relatively small sample and the resulting sampling error reflected in the "normal" or average figures employed as a base, the wide range in the values permits their acceptance within tolerable limits. I am simply suggesting, if I may elaborate a bit, that this is subject to sample but since the range from .3 to 300 is so wide with dragging variations about one way or another it still would leave a very substantial range of variations among the ratios.

It appears that the degree of upward discrimination in Canada is at least comparable to that in the United States. In United States official territory revenue-cost ratios of 210, which we indicated before to be rather high.

MR. FRAWLEY: If I may just insert this





1  
2 remark. On a statistical basis if you have a revenue  
3 cost ratio of 210 --I am looking at the sentence in your  
4 text at Page 16 -- in the United States -- may I put  
5 it this way: on a statistical basis if you have a  
6 revenue cost ratio of 210 you get a car mile revenue  
7 ratio of around 140.

8 A. Yes, or putting it the other way, if  
9 you have a car mile revenue ratio of 140 the chances  
10 are you will have a revenue out-of-pocket cost ratio  
11 of about 210.

12 In United States Official Territory revenue-  
13 cost ratios of 210 correlate rather closely with car-  
14 mile revenue ratios of around 140. If this corre-  
15 lation has any general applicability, car-mile ratios  
16 over 200 must certainly be considered very high. The  
17 67 sample movements with ratios over this level are  
18 detailed in Appendix II. This, again, I believe is  
19 self-explanatory, showing the movement and the mileage  
20 involved in the movement, the actual car mile revenue  
21 ratio and as a weighting factor the number of sample  
22 ton miles actually involved.

23 Q. This is Canadian data ?

24 A. Yes. In "A" it shows it is drawn  
25 from the 1958 waybill sample.

26 Q. That is from the Motor Transport Com-  
27 missioners' waybill sample?

28 A. Right. Since it appears that these  
29 movements probably bear relatively high rates -- in  
30 terms of costs -- and are among those that require







1  
2 close regulatory examination their characteristics  
3 are summarized in the following series of tabulations  
4 which reflect distance, origin-destination, and  
5 commodity characteristics.

6 Q. Now, these three classifications,  
7 movement classification, and on page 17, distance  
8 classification and commodity classification, are  
9 arithmetical results from the information in Appendix  
10 II?

11 A. That is right. They are tabulations  
12 from Appendix II. I have some general observations  
13 about what these tables show and it is not lengthy ---

14 Q. You mean in addition to the observations  
15 on page 17?

16 A. Yes, I am saying I will comment briefly  
17 on what those tabulations show.

18 MR. SINCLAIR: Did Dr. Roberts say the ton  
19 miles in Appendix II were weighted?

20 THE WITNESS: No.

21 MR. SINCLAIR: The answer, he says, is no.

22 MR. FRAWLEY: You put the question to  
23 me and you got your answer from Dr. Roberts.

24 THE WITNESS: If I may, I would like to say  
25 a word ---

26 Q. We are very informal here.

27 A. The ton miles are shown as weights; I  
28 am not saying the ton miles themselves are weighted.  
29  
30





ANGUS, STONEHOUSE & CO. LTD.  
TORONTO, ONTARIO

Roberts, dir  
(Frawley)

17279

Movement Classification

| <u>Province</u>  | <u>Number of<br/>origin cases</u> | <u>Number of<br/>destination cases</u> |
|------------------|-----------------------------------|--|
| Quebec           | 17                                | 20                                     |
| Alberta          | 4                                 | 12                                     |
| Nova Scotia      | 3                                 | 3                                      |
| Manitoba         | 9                                 | 7                                      |
| Ontario          | 19                                | 15                                     |
| British Columbia | 10                                | 4                                      |
| Saskatchewan     | 4                                 | 4                                      |
| New Brunswick    | <u>1</u>                          | <u>2</u>                               |
|                  | 67                                | 67                                     |

Distance Classification

| <u>Mileage block</u> | <u>Number of cases</u> |
|----------------------|------------------------|
| 0-100                | 19                     |
| 101-200              | 11                     |
| 201-300              | 5                      |
| 301-400              | 9                      |
| 401-500              | 9                      |
| 501-750              | 4                      |
| 751-1000             | 3                      |
| 1001-1500            | 4                      |
| 1501-2000            |                        |
| over 2000            | <u>3</u>               |
|                      | 67                     |





Commodity Classification

| <u>Commodity class</u> | <u>Number of cases</u> |
|------------------------|------------------------|
| Agricultural           | 7                      |
| Animals                | 1                      |
| Mines                  | 17                     |
| Forest                 | 0                      |
| Manufacture & Misc.    | <u>42</u>              |
|                        | 67                     |

Although a number of these high ratios are concentrated in the range under 100 miles, the other cases are fairly well scattered over the distance spectrum. It is probably not surprising that 42 of the 67 cases involved commodities in the Manufactures and Miscellaneous class. The secondary concentration -- 17 cases -- in mines products is, however, noteworthy, along with the virtual absence of representation among animals and forest products. The provincial concentration is also interesting, with Quebec and Ontario together accounting for the largest number of originations (36) and terminations (35). This is partly accounted for by the relatively large proportion of total sample car-loads attributable to these provinces and by the importance of manufactures in their traffic patterns.

III

The foregoing arguments should not be construed as advocating cost-based pricing with







1  
2 uniform overhead contributions. The possible effect  
3 of this system was considered only in order to  
4 visualize its implications or effect or for volume and  
5 average costs, and in order to establish an external  
6 ~~measure~~ of excess of discrimination. Discrimination  
7 is still a valid railroad pricing device, but its  
8 range should be explicitly limited in terms of the  
9 cost structures associated with present-day traffic  
10 densities. Any rates that exceed a ceiling indicated  
11 by the test described here, or the uniform pricing  
12 test, should be reduced since the shippers involved  
13 are worse and not better off with discrimination.  
14 Assuming, however, that the lower rates make their  
15 best contribution to overhead, neither public nor  
16 private purposes would be served by arbitrarily in-  
17 creasing them to some stipulated ratio. Discrimina-  
18 tion below the ceiling would facilitate overhead  
19 coverage and tend to reduce average costs and  
20 overall rate levels and thus benefit those paying  
21 rates involving above-average contributions.  
22 Limiting discrimination in this way to that really  
23 necessary to support fully existing plant investment  
24 likewise minimizes the distortions associated with  
25 uneconomic patterns of resource use.  
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2 Reducing the high rates should not necessarily  
3 imply a revenue gap and the failure to cover overhead.  
4 -- assuming here the absence of unprofitable services  
5 performed either voluntarily or by mistake or by public  
6 requirement. If the volume at uniform ratios would  
7 permit -- or even nearly permit -- full coverage, this  
8 goal should certainly be attainable with a system of  
9 discrimination operating below the prescribed ceiling.  
10 Even if some additional upward discrimination were  
11 countenanced -- e.g., ratios over 178 in the United  
12 States case -- to achieve these financial ends, the  
13 amount required should be far less than presently  
14 prevails.

15 Q. Dr. Roberts, what results do you fore-  
16 see if gross revenues should actually shrink as a  
17 result of reducing rates that your test would regard  
18 as excessive?

19 A. First, I would say again, as I have  
20 suggested here -- and perhaps putting it in other terms  
21 -- net profit or net revenues, which I certainly sup-  
22 pose is the primary interest of the railways, or should  
23 be as business enterprises -- are resultant of  
24 several variables: price per unit of sales, volume  
25 of sales, and the costs. There is more than one  
26 combination of these. In other words, they all vary  
27 together -- different price means different volume and  
28 different volume means different costs. There is  
29 more than one combination of them which will achieve  
30 a given volume of net revenues. Particularly in the







1  
2 United States -- and I can't say as much for Canada, of  
3 course; this is a matter of opinion at this stage -- the  
4 expansion in rail traffic that would result from reducing  
5 these very high rates would certainly at least compen-  
6 sate for and perhaps more than compensate for the  
7 through increased volume for the lower price that would  
8 be involved. But I believe this is not a specific  
9 answer to your question. The question is, "What  
10 if this did not happen?" I think there are two things  
11 one could say there: first, as business enterprises, I  
12 would argue that railways along with other enterprises  
13 are not entitled by divine right to any particular  
14 level of gross or net revenues. We have a more  
15 specific rule in the United States, and again, I can't  
16 speak authoritatively. With regard to the system of  
17 regulation you have, it is an implicit part of the law,  
18 if not explicit, that utility companies subject to  
19 regulation are entitled to be made whole to cover all  
20 the costs they incur including a normal return on all  
21 past investment providing this is done by not charging  
22 individual prices that are excessive.

23 What we are talking about here is some weighted  
24 measure when prices are excessive. So, this part  
25 of the answer would add up to the fact that any net  
26 revenues achieved by the railways, however determined,  
27 by rational tests of appropriate rate ceilings, revenue  
28 achieved by this amount in captive or monopoly traffic  
29 is something they are not by social right entitled to.  
30 If in this case revenues are inadequate in the sense





1  
2 that total revenues do not equal total costs including  
3 a normal return on all past investment, then there are  
4 two alternatives that are open, both of which have  
5 been discussed in little different terms in the last  
6 day or so. First, contraction of the rail plant:  
7 there is nothing magical or sacred about a total revenue  
8 total cost equation for railways as business enterprises.  
9 There is nothing sacred about any given level of invest-  
10 ment in railways. In other words, if the market  
11 at reasonable rates will not support existing rail  
12 plant, if other modes of transportation have come in  
13 to take over part of the job, then the price to maintain  
14 that plant may well be quite impossible. In this  
15 case, the first possibility is the contraction of the  
16 rail plant.

17 The second, of course, is that if a social  
18 policy does not deem it is desirable, and this level  
19 of investment and size of plant is to be maintained,  
20 and not to be maintained through what we identify as  
21 unreasonable exactions against some shippers, then the  
22 obvious recourse is subsidy.

23 The foregoing discussion has emphasized  
24 output-cost-price relationships that would maintain  
25 under uniform pricing the financial support for the  
26 rail system achieved by discrimination. This support  
27 requirement is itself open to question. Aside from  
28 the rate limits dictated by the uniform pricing test  
29 with full overhead coverage, high rates can be question-  
30 ed on another ground associated with the distinction







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between competitive and non-competitive traffic.

I suspect I have anticipated, in the answer to your query, Mr. Frawley, some of the things I am going to say here.

There is no apparent reason for "monopoly" traffic as a class to contribute significantly more to the financial support of the system than competitive traffic under a system of regulation designed to restrict rates to "reasonable" levels. It is precisely in the competitive sector that by definition a "normal" return is earned. In other words, where competition is at work the market determines financial rewards and investment returns. Fair competition does not generally provide undue restraints on earnings and there is no reason to expect it to do so in transportation. If a normal return is appropriately construed as that accorded under competition, there is no reason to have to "make up" anything on that portion of a company's business that is not subject to competitive pressures.

It is difficult to assign railroad traffic neatly into competitive and non-competitive categories, since the distinction is largely one of degree. But for present purposes it is reasonable enough to accept the classification of the Board of Transport Commissioners. It is true that "monopoly" rates are not uniformly higher than competitive rates since the former often apply to low-grade commodities without good alternative transport services and the latter to high-value items subject to strong motor carrier competition. But the







1  
2 Canadian waybill data do strongly suggest some unfavourable  
3 treatment of non-competitive movements. The full extent  
4 of the differentiation is undoubtedly blurred by the  
5 aggregated data and comparison is difficult because of  
6 the complication of differences in haul lengths. But  
7 as one case, in 1958 car-mile revenues on non-com-  
8 petitive East-to-East traffic exceeded by 21 per cent  
9 the yield on competitive volume, although average hauls  
10 were comparable. On maritime-to-maritime traffic  
11 the discrepancy was 9 per cent despite virtually identi-  
12 cal hauls. (Board of Transport Commissioners, Waybill  
13 Analysis, 1958.) The offending rates should be re-  
14 viewed in the light of the observations regarding the  
15 appropriate relationship between competitive and non-  
16 competitive rates in a normal return. This does not  
17 imply a cost basis of rates but simply that the  
18 appropriate ranges of discrimination should be little  
19 different for the two general classes of traffic.

20 It is possible that the restraints on upward  
21 discrimination proposed in the present connection might  
22 restrict overall earnings and overhead coverage. But  
23 in transportation as in the economy generally investors  
24 should be required to take their chances on the effects  
25 of competition; if these effects are adverse it is not  
26 at all clear that investors in a regulated public-service  
27 industry are entitled to recoup by monopoly level exae-  
28 tions in non-competitive markets. Nor is there any  
29 economic reason why any particular level of return must  
30 be earned on past investment -- sunk investment; its





1  
2 services will be available in any case. All that is  
3 economically required are returns adequate to induce  
4 needed future investment. If the realizable returns are  
5 not adequate in the face of competition to induce the  
6 investment, it should not be made; certainly it should  
7 not require the support of monopoly returns in non-  
8 competitive markets. If investment beyond that  
9 dictated by these market forces is regarded as socially  
10 desirable, it should not be supported by a limited  
11 number of producers and consumers but by the economy  
12 as a whole. Subsidy, the most generally accepted  
13 device for inducing this broad-scale support for  
14 social objectives without market sanction, is the  
15 indicated solution in this case.

16  
17 IV

18 In summary, properly-controlled railroad  
19 rate discrimination performs a useful economic function  
20 both by providing a means for covering fixed costs and  
21 by minimizing unit costs. But it must be limited  
22 in the interests of both equity and economics since  
23 high rates may be detrimental to affected shippers on  
24 both grounds. Furthermore, by divorcing rates from  
25 costs distortions in the location of production and  
26 use of resources are introduced which are detrimental  
27 to the entire economy. It is therefore essential  
28 that discrimination be limited in order to exploit  
29 fully its advantage and to minimize its costs.

30 Although such control has been one of the







1  
2 important functions of regulation, it is questionable  
3 that the historic concepts and methods are adequate  
4 to maximize the gains and minimize the costs of  
5 discrimination. The comparative method of testing  
6 rates was probably adequate in the early years when  
7 the forms and procedures of regulation were  
8 developed. In that era of lower traffic densities the  
9 legitimate sweep of discrimination was much broader  
10 than at present. And the opportunity for developing  
11 refined tests was limited by the relative crudity  
12 of the available analytical techniques and machines.  
13 But the comparative method, although perhaps formerly  
14 necessary and adequate, is plagued with circularity and  
15 provides no standards of any real vitality and  
16 validity. As a result, the historic patterns of  
17 discrimination, compounded by general percentage rate  
18 increases, are no longer valid as the legitimate range  
19 of discrimination shrinks.

20 As the need has changed, analytical methods  
21 and facilities have improved immeasurably. In the  
22 interests of sound regulation, responsible officials  
23 must exploit fully the new opportunities for data  
24 collection and analysis. (Appendix III outlines  
25 in some detail the kinds of data and analyses required  
26 for sound regulation along the lines advocated in  
27 this statement.)

28 Q. I would like you to at least give the  
29 Commission the highlights of that Appendix III, and  
30 perhaps this would be as good a time as any to do so.





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It will not take long to read it.

A. Appendix III deals with data and analyses required for applying the uniform pricing rule.

1. Cost Studies. The newly-developed statistical methods offer real promise of substantial advances in costing. These and other techniques should be fully exploited to develop the following:

- a. General descriptions of cost structures, with particular reference to cost variability. This is not only an essential step in determining costs of specific services as required below, but it is also necessary for the determination of the general effect on unit costs of output restrictions which is important in applying the uniform pricing rule advocated in this statement.
- b. Determinations of the long-run marginal costs of providing particular services. Among other important uses, such measurements are necessary for developing the general revenue contribution studies and for determining the degree of discrimination in particular cases.

2. Revenue data. The waybill sample provides a strong basis for the revenue measurement required for determining revenue-cost relationships. However, this data would be strengthened substantially by increasing the size of the sample to perhaps 2 per cent -- admittedly, a figure pulled out of the air.





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2 The very limited number of carloads in many traffic  
3 classes and movement categories creates a substantial  
4 sampling error. (See, for example, the notes to  
5 Appendix Table I, as I mentioned in connection with  
6 the construction of car-mile revenue ratios.) The  
7 limited traffic volumes make the one per cent sample  
8 relatively less satisfactory in Canada than it is in  
9 the United States, and even there the sampling error  
10 constitutes a serious problem in many traffic cate-  
11 gories.

12 3. Market studies. Even with traditional  
13 approaches to discrimination control, much needs to be  
14 known about the specific influence of transport prices  
15 on amounts of transportation purchased and about market  
16 responses to price changes or rate changes. Such  
17 information is necessary, for example, in determining the  
18 extent to which a specific rate impedes marketing  
19 opportunities and hence traffic flow. The limited  
20 information now developed emerges on an ad hoc basis in  
21 specific litigation. Broad-scale studies of demand  
22 elasticity would provide insights into market behaviour  
23 valuable for present control patterns; but more pertinent  
24 for present purposes, they would be vital for appli-  
25 cation of the uniform pricing rule. These studies  
26 should embrace such considerations as the technical  
27 substitutability of alternative modes in particular  
28 transport markets -- with indications of substitu-  
29 tion elasticity -- the effect of rate changes on  
30 material sources and market outlets, and the







1  
2 incidence of freight rates. The methodology would  
3 embrace both analyses of past responses to particular  
4 rate changes and intensive market surveys of  
5 shippers.

6 4. Analyses for specific application of  
7 the uniform pricing rule. The foregoing elements  
8 -- cost, revenue, and demand-elasticity studies -- must  
9 be brought together to apply the uniform pricing  
10 rule. In combination they can provide tolerable  
11 answers to the fundamental questions: what level of  
12 output would be realized with uniform prices and  
13 what level of unit costs would be associated with  
14 that output?

15 Canada urgently needs as a basic regulatory  
16 tool detailed revenue contribution -- or "burden" --  
17 studies for specific traffic segments comparable  
18 to those made in the United States in order to  
19 determine the full sweep of discrimination and to  
20 detect the rates which may require readjustment.

21 (Ad hoc determinations of revenue-cost relationships  
22 for particular traffic movements involved in rate  
23 litigation are of little value; the propriety of  
24 particular rates can be determined only in terms of  
25 the full sweep of revenue-cost relationships.) The  
26 pursuit of such studies, and other purposes as well,  
27 requires extensive and continuous costing activities.  
28 Furthermore, much more needs to be known about the  
29 demand for rail transport services. It repre-  
30 sents simply a summary of Appendix III.





1  
2 But rational data exploitation is fruitless  
3 if not impossible without a comparable improvement in  
4 the concepts of rate control. This statement has  
5 advanced a fundamental test of rate ceilings and  
6 discrimination limits which is deeply rooted in the  
7 basic rationale and theoretical justification for  
8 discrimination and which, if applied, would go far  
9 to ensuring the maximization of its benefits and the  
10 minimization of its costs. According to this rule,  
11 rates should not exceed levels dictated by the average  
12 costs associated with uniform pricing. This pro-  
13 position includes in costs overhead coverage as com-  
14 plete as that achieved under discrimination. This  
15 full coverage, however, is subject to the major  
16 qualification that it should not be achieved through  
17 monopoly level exactions on non-competitive business.  
18 The economically appropriate rewards to railroad  
19 enterprise and future levels of investment in rail  
20 plant are those dictated by the market under com-  
21 petitive conditions. If investment in rail plant  
22 beyond the indicated level is regarded as socially  
23 desirable, its support should be provided by the  
24 economy generally and not by a limited group of  
25 producers and consumers.

26 It is impossible with available data to  
27 describe rate patterns and to determine appropriate  
28 rate ceilings with any real precision. But inferen-  
29 tial evidence at least suggests that some Canadian  
30 rates violate the principles advocated here and







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therefore the rules of socially sound transport pricing.  
It should be the responsibility of regulatory authori-  
ties to make the appropriate tests and remove this  
important question from the speculative area. The  
empirical determinations are difficult at best, but the  
effort must be made if railroad rates are to provide  
a stimulus rather than a barrier to balanced economic  
growth in Canada.

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Appendix 1

Average Car-Mile Revenues, by Distance, Employed  
in Computing Car-Mile Revenue Ratios

|    | <u>Distance</u> | <u>Average<br/>revenue<br/>per car-mile</u> |
|----|-----------------|---|
| 1  |                 |   |
| 2  |                 |   |
| 3  |                 |   |
| 4  |                 |   |
| 5  |                 |   |
| 6  |                 |   |
| 7  | 0 - 25          | 171   |
| 8  | 26 - 30         | 163   |
| 9  | 31 - 35         | 160   |
| 10 | 36 - 40         | 150   |
| 11 | 41 - 45         | 140   |
| 12 | 46 - 50         | 133   |
| 13 | 51 - 55         | 123   |
| 14 | 56 - 60         | 118   |
| 15 | 61 - 70         | 108   |
| 16 | 71 - 80         | 104   |
| 17 | 81 - 90         | 102   |
| 18 | 90 -100         | 100   |
| 19 | 101 -110        | 99  |
| 20 | 111 - 120       | 97  |
| 21 | 121 - 130       | 96  |
| 22 | 131 - 140       | 95  |
| 23 | 141 - 150       | 94  |
| 24 | 151 - 160       | 93  |
| 25 | 161 - 170       | 92  |
| 26 | 171 - 180       | 91  |
| 27 | 181 - 190       | 90  |
| 28 | 191 - 200       | 89  |
| 29 | 201 - 210       | 88  |
| 30 | 211 - 220       | 87  |





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|    |                 |   |
|----|-----------------|---|
| 1  |                 |   |
| 2  | (Continued)     |   |
| 3  | <u>Distance</u> | <u>Average<br/>revenue<br/>per car-mile</u> |
| 4  | 221 - 230       | 87  |
| 5  | 231 - 240       | 86  |
| 6  | 241 - 250       | 85  |
| 7  | 251 - 270       | 84  |
| 8  | 271 - 290       | 83  |
| 9  | 291 - 300       | 81  |
| 10 | 301 - 310       | 80  |
| 11 | 311 - 320       | 79  |
| 12 | 321 - 330       | 78  |
| 13 | 331 - 340       | 77  |
| 14 | 341 - 350       | 76  |
| 15 | 351 - 360       | 75  |
| 16 | 361 - 370       | 74  |
| 17 | 371 - 380       | 73  |
| 18 | 381 - 390       | 72  |
| 19 | 391 - 400       | 71  |
| 20 | 401 - 410       | 70  |
| 21 | 411 - 420       | 69  |
| 22 | 421 - 430       | 69  |
| 23 | 431 - 440       | 68  |
| 24 | 441 - 450       | 68  |
| 25 | 451 - 460       | 67  |
| 26 | 461 - 480       | 66  |
| 27 | 481 - 500       | 65  |
| 28 | 501 - 520       | 64  |
| 29 | 521 - 540       | 63  |
| 30 | 541 - 560       | 62  |







(continued)

| 1  |                 |                     |
|----|-----------------|---------------------|
| 2  |                 | Average             |
| 3  | <u>Distance</u> | <u>revenue</u>      |
| 4  |                 | <u>per car-mile</u> |
| 4  | 561 - 590       | 61                  |
| 5  | 591 - 620       | 60                  |
| 6  | 621 - 640       | 59                  |
| 7  | 641 - 660       | 58                  |
| 8  | 661 - 680       | 57                  |
| 9  | 681 - 700       | 56                  |
| 10 | 701 - 730       | 55                  |
| 11 | 731 - 760       | 54                  |
| 12 | 761 - 790       | 53                  |
| 13 | 791 - 830       | 52                  |
| 14 | 831 - 870       | 51                  |
| 15 | 871 - 2120      | 50                  |
| 16 | 2121 - 2190     | 49                  |
| 17 | 2191 - 2250     | 48                  |
| 18 | 2251 - 2300     | 47                  |
| 19 | 2301 - 2370     | 46                  |
| 20 | 2371 - 2450     | 45                  |
| 21 | 2451 - 2520     | 44                  |
| 22 | 2521 - 2600     | 43                  |
| 23 | 2601 - 2670     | 42                  |
| 24 | 2671 - 2750     | 41                  |
| 25 | 2751 - 2890     | 40                  |
| 26 | 2891 - 2990     | 39                  |
| 27 | 2991 - 3110     | 38                  |
| 28 | 3111 - 3220     | 37                  |
| 29 | 3221 - 3360     | 36                  |
| 30 | 3361 - 3500     | 35                  |
|    | 3501 - 3600     | 34                  |





Notes to foregoing Table.

The following procedures were used in determining the average car-mile revenue employed in computing the ratios:

(1) The car-mile revenue data in Waybill Analysis, 1958 were recast by mileage blocks and a weighted average secured for each block.

(2) These averages were plotted and the resulting curve was smoothed by inspection. Smoothing was particularly required in the 100 - 900 mile range.

(3) The data in the table were read from the smoothed curve.

When the same data were plotted for the United States, the resulting curve was perfectly smooth and approximated a rectangular hyperbola. The erratic behaviour in the present data in the 100 - 900 mile range is undoubtedly attributable to the relatively smaller universe from which the one percent sample was drawn. The curve as smoothed through this range probably introduces a conservative bias by restricting the magnitude of the ratios. It doesn't assume as much curvature as the generalized United States pattern and therefore maintains a higher level than if it followed the hyperbolic form more completely.

Between 900 and 2100 miles the plotted data fluctuate rather closely around 50 cents and the curve was smoothed at that value over this range. This too







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may be conservative since some decline would be  
expected. Over 2100 miles the values (and the curve)  
drop neatly to 34 cents.



| Commodity                       | Movement<br>(From - to) | Mileage | Car-mile<br>Revenue<br>Ratio | Ton Miles |
|---------------------------------|-------------------------|---------|------------------------------|-----------|
| Railway Equipment               | Q-Q                     | 35      | 604                          | 8159      |
| Sodium Soda Products            | A-A                     | 82      | 457                          | 21142     |
| Manufactures and Miscellaneous  | NS-A                    | 2801    | 380                          | 139490    |
| Asphalt                         | M-M                     | 9       | 377                          | 1657      |
| Gases other than petroleum      | Q-O                     | 368     | 349                          | 60775     |
| Soybeans                        | O-O                     | 146     | 318                          | 105220    |
| Sulphuric Acid                  | O-Q                     | 440     | 316                          | 103371    |
| Alloys for Steel manufactures   | Q-Q                     | 28      | 310                          | 4382      |
| Asbestos Milled                 | Q-Q                     | 82      | 297                          | 174215    |
| Sulphur                         | O-O                     | 166     | 283                          | 114468    |
| Sulphuric Acid                  | BC-A                    | 460     | 278                          | 69736     |
| Machinery Parts                 | Q-Q                     | 59      | 275                          | 13182     |
| Manufactured Iron and Steel     | M-S                     | 426     | 271                          | 98638     |
| Iron and Steel Bar Rod and Slab | Q-A                     | 2050    | 268                          | 732564    |
| Iron and Steel Borings          | Q-Q                     | 22      | 267                          | 3047      |
| Chemicals                       | Q-Q                     | 86      | 262                          | 19520     |
| Manufactured Iron and Steel     | NS-NS                   | 280     | 261                          | 41959     |



| <u>Commodity</u>                 | <u>Movement<br/>(from - to)</u> | <u>Mileage</u> | <u>Revenue<br/>Ratio</u> | <u>Ton Miles</u> |
|----------------------------------|---------------------------------|----------------|--------------------------|------------------|
| Lime                             | M-O                             | 339            | 258                      | 124108           |
| Wheat                            | A-A                             | 93             | 256                      | 99017            |
| Copper, Brass and Bronze         | O-O                             | 325            | 255                      | 52471            |
| Wheat                            | S-S                             | 74             | 250                      | 164719           |
| Gases other than petroleum       | O-NB                            | 724            | 249                      | 68508            |
| Iron and Steel Pipe and Fittings | BC-A                            | 763            | 249                      | 304995           |
| Matte                            | O-Q                             | 443            | 247                      | 199505           |
| Sodium and Soda Products         | BC-A                            | 870            | 247                      | 122624           |
| Products of Mines                | M-M                             | 39             | 245                      | 8489             |
| Sulphuric Acid                   | Q-Q                             | 95             | 244                      | 8626             |
| Soybean Oil Cake Meal            | M-M                             | 72             | 244                      | 37807            |
| Cement, Natural and Portland     | M-M                             | 388            | 242                      | 148404           |
| Sodium Soda Products             | S-O                             | 1044           | 242                      | 384604           |
| Products of Mines                | NS-NS                           | 63             | 240                      | 6796             |
| Sodium Soda Products             | O-O                             | 192            | 237                      | 299791           |
| Copper ore and conc              | Q-Q                             | 181            | 233                      | 492309           |
| Products of Mines                | NB-NB                           | 135            | 231                      | 14270            |
| Sulphuric Acid                   | O-O                             | 309            | 230                      | 115000           |





| <u>Commodity</u>                 | <u>Movement<br/>(From - to)</u> | <u>Mileage</u> | <u>Car-mile<br/>Revenue<br/>Ratio</u> | <u>Ton Miles</u> |
|----------------------------------|---------------------------------|----------------|---------------------------------------|------------------|
| Manufactured Iron and Steel      | O-M                             | 1267           | 230                                   | 140802           |
| Wheat                            | O-O                             | 122            | 227                                   | 456922           |
| Lead and Zinc Bar Ingot Pig      | BC-BC                           | 499            | 226                                   | 609502           |
| Food Products                    | BC-A                            | 649            | 226                                   | 141347           |
| Gases other than petroleum       | O-O                             | 306            | 224                                   | 124235           |
| Iron and Steel Pipe and Fittings | S-A                             | 458            | 223                                   | 46892            |
| Asphalt                          | Q-Q                             | 489            | 223                                   | 154144           |
| Iron and Steel Bar Rod and Slab  | M-M                             | 23             | 222                                   | 3991             |
| Products of Mines                | Q-Q                             | 120            | 221                                   | 12572            |
| Scrap Iron and Steel             | Q-Q                             | 93             | 220                                   | 35985            |
| Products of Agriculture          | M-M                             | 59             | 218                                   | 8633             |
| Sulphur                          | A-A                             | 433            | 218                                   | 290462           |
| Lead Ore and Concentrates        | BC-BC                           | 201            | 215                                   | 188599           |
| Copper Ingot and Pig             | Q-Q                             | 572            | 215                                   | 1140007          |
| Products of Mines                | O-NS                            | 1304           | 214                                   | 100278           |
| Iron and Steel Pipe and Fittings | Q-O                             | 375            | 214                                   | 57625            |
| Products of Mines                | Q-O                             | 403            | 213                                   | 79755            |



## Appendix II (continued)

| <u>Commodity</u>            | <u>Movement<br/>(From - to)</u> | <u>Mileage</u> | <u>Car-mile<br/>Revenue<br/>Ratio</u> | <u>Ton Miles</u> |
|-----------------------------|---------------------------------|----------------|---------------------------------------|------------------|
| Animals and Animal Products | S-A                             | 170            | 212                                   | 3485             |
| Zinc Ore and Concentrates   | BC-BC                           | 219            | 211                                   | 765585           |
| Manufactured Iron and Steel | Q-Q                             | 134            | 210                                   | 43700            |
| Gases other than petroleum  | O-Q                             | 324            | 210                                   | 178577           |
| Barley                      | A-A                             | 168            | 210                                   | 136446           |
| Salt                        | M-M                             | 99             | 209                                   | 11977            |
| Asphalt                     | O-O                             | 95             | 208                                   | 33292            |
| Chemicals                   | O-Q                             | 467            | 208                                   | 89033            |
| Products of Mines           | O-Q                             | 264            | 205                                   | 117801           |
| Matte                       | O-O                             | 249            | 205                                   | 183504           |
| Food Products               | BQ-S                            | 1039           | 204                                   | 115619           |
| Liquors, Alcoholic          | BC-Q                            | 2877           | 203                                   | 265586           |
| Newsprint Paper             | BC-BC                           | 832            | 202                                   | 133704           |
| Scrap for Remelting         | Q-Q                             | 168            | 201                                   | 46124            |
| Newsprint Paper             | M-S                             | 555            | 200                                   | 44375            |







Appendix II (continued)

a  
Drawn from the 1958 waybill sample. The "car-mile revenue ratios" are the ratios of car miles earnings to the "normal" or average earnings for the appropriate distance. The "normal" values from which the ratios are drawn are described in Appendix 1.

b  
Movement Key

Q = Quebec

O = Ontario

BC = British Columbia

NS = Nova Scotia

NB = New Brunswick

A = Alberta

S = Saskatchewan

M = Manitoba





1  
2 THE CHAIRMAN: Mr. Cumming?

3  
4 CROSS-EXAMINATION BY MR. CUMMING:

5 Q. Dr. Roberts, as we go along you will bear  
6 with me, I trust, if I appear to stumble from time to time  
7 on to what appears to me, in any event, if not to  
8 some others, a rather difficult and complex matter.

9 On the first page of your brief, sir, you  
10 point out that on conventional rate-making principles  
11 rates vary primarily in accordance with the demand for  
12 transportation and not with the cost of providing various  
13 services and that with fully effective competition  
14 discrimination would wither away as rates move towards  
15 costs.

16 I take it that in a climate of complete  
17 competition the result would be that a rate structure  
18 would be a totally cost-oriented one?

19 A. Very closely. I would say this. I think  
20 certainly that the major portions of discrimination --  
21 I say here "wither away", which is not necessarily  
22 die -- would wither away. Such economic forces as joint  
23 costs would be another occasion for discrimination, where  
24 you have -- well, if we need to get into it -- the  
25 jointness associated with backhauls for example.

26 In this particular occasion, discrimination,  
27 different levels of rates related to costs, depending  
28 upon the intensity of demand in opposite directions  
29 might still occasion some continuation of discrimination.

30 Q. Could you speak up just a little, please,  
Dr. Roberts?





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A. Yes.

3

4

5

6

Q. But, assuming a fully competitive situation, the result, as I understand from what you say in your brief, would be that the rate structure would be cost-oriented.

7

A. Essentially cost-oriented, yes.

8

9

Q. And that, I take it, in your view would be a good thing?

10

A. No, not necessarily.

11

12

13

14

As I said, I think the main justification for discrimination results from the relatively large rail overhead, and we can contrast, I think, the railroad industry here with the trucking industry.

15

16

17

18

19

I think, for example, there is little real basis for real discrimination in the trucking industry. It can be and should be and basically is essentially competitive. Its cost structure is not one that involves any volume of allocating overhead.

20

21

22

23

I think this relative demand, elasticity, is a socially sound way of allocating this rail overhead, subject to the limitations that we are talking about here.

24

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26

27

28

Q. Do you not feel, Dr., -- to use the term that pops up from time to time here -- that we would have the optimum resource allocation of our transport facilities if the low cost carrier in every instance handled the movement?

29

A. Yes.

30

Q. And, if I may go back again, if competition







1  
2 were all pervasive,, would that not be the result?

3 A. Yes, this cost-orientation would, if  
4 prices reflected relative costs in the more efficient  
5 carrier, would, assuming now homogeneous quality or  
6 the same quality of service, the carrier with the lowest  
7 cost would get the business. This is not necessarily  
8 the most efficient, from the standpoint of overall  
9 distribution costs, let us say -- if this were true,  
10 there would reasonably be no ~~air~~ transportation of any  
11 kinds of commodities, if you take into consideration  
12 other costs, such as inventory costs, service costs --

13 Q. I was thinking of the all-embracing aspects  
14 of it so, that is, associated costs, capital costs,  
15 service considerations and the like.

16 A. Yes, certainly they would be facilitated  
17 by having cost-oriented transportation rates.

18 Q. But the essential fact remains that  
19 competition is not that all-pervasive; that is to say,  
20 there are substantial segments of traffic which are not  
21 subject to alternate carriage; and is not that the source  
22 of the problem? Is it not that area that any scheme of rate  
23 control seeks to protect?

24 A. Well, certainly, in terms of my discussion,  
25 this is the range of interest. There certainly may be  
26 other kinds of regulatory problems, even in the  
27 competitive sector. Certainly, we have them in the  
28 United States.

29 This has been the thing we have been most  
30 concerned with in recent years -- appropriate kinds of





1  
2 controls at the lower end of the scale. But, for  
3 pricing purposes, certainly in this discussion we are  
4 concerned with the situation where full-fledged  
5 competition is not active.

6 Q. Assuming that in the areas where  
7 competition can effectively operate and so bring about  
8 the situation where goods move by the low cost carrier  
9 -- all these other considerations being taken into  
10 account -- are we not faced with the situation, perhaps  
11 to repeat myself, that the area that requires  
12 regulatory protection is that area which does not have  
13 the benefit of the forces of competition?

14 A. Exactly.

15 Q. Now, going further along with your  
16 submission, you point out that upward discrimination is  
17 unjustified if some rates are gratuitously low by failing  
18 to provide as much overhead coverage as demand conditions  
19 permit. Is it your idea in the scheme of rate making  
20 that you envisage that this problem should be resolved  
21 by legislative fiat? Or, is it something which should,  
22 in your view, be left to the railways in their own  
23 rate making activity and in their own self-interest to  
24 endeavour to enlarge the contribution to overhead?

25 A. My view of this is to accord the railroads  
26 -- this I have argued for and there are things I have  
27 written in the United States regarding the United States  
28 rail system -- the maximum amount of freedom in this.  
29 In fact, I would go farther than the Commerce report  
30 did in this respect.







1  
2 Q. Then, in connection with this very scheme  
3 that you have, is it your suggestion that it be  
4 statutorily imposed; that it be prescribed by a  
5 regulatory tribunal, or that it be merely adopted by  
6 the railways as the foundation stone of their rate  
7 making practices?

8 A. I would contemplate that it should, could,  
9 and would be adopted by the railroads in their own  
10 self-interest, maximizing net, subject always to this  
11 qualification I have talked about today; namely, that  
12 there is a point beyond this maximization that should  
13 not be permitted.

14 Q. How is that to be established?

15 A. Well, there may be alternative ways. I  
16 have proposed a test which squares, I think, with  
17 economic theory, namely -- well, you can ecliptically  
18 refer to it as the economic pricing test I have  
19 described.

20 Q. What I am getting at is this, Dr. Roberts.  
21 Would that be a legislatively imposed ceiling?

22 A. Well, I do not know how amenable, if this  
23 were to be adopted, the Board of Transport Commissioners  
24 would be to adopting it, and I just do not know whether  
25 legislation would be required or not. You can draw a  
26 parallel -- in our case, I think the I.C.C. would  
27 probably require some sort of legislation.

28 Q. In this scheme, there is a maximum, and,  
29 of course, inherent in the scheme to make it succeed  
30 is the necessity of bringing up a body of low rates?





1  
2 A. Yes.

3 Q. Well, do you suggest that the ceiling be  
4 imposed by law and that it be left to the railways to  
5 pull themselves up by the boot straps, so to speak, to  
6 improve the situation here?

7 A. Yes, I would contemplate this.

8 Q. Or, would you put a floor on rates by  
9 law, as well?

10 A. No. I believe with adequate maximum  
11 control that a floor would not be necessary.

12 Q. But, given a fixed legal maximum, the  
13 railways would, I suppose, in their own self-interest  
14 bring up these low rates in order to meet their revenue  
15 requirements?

16 A. Yes.

17 THE CHAIRMAN: You would agree with Dr.  
18 Williams that the carriers ought to be allowed a greater  
19 amount of freedom in the making of rates?

20 THE WITNESS: Yes, indeed, sir.

21 MR. CUMMING: Q. Now, on page 3, in italics,  
22 you say:

23 "Higher than average rates are unjustified if  
24 they exceed amounts dictated by the output and  
25 unit costs that would be associated with non-  
26 discriminatory rates".

27 Just so that I may have it as clear as I can  
28 for my own mind, in any event, average rates there means  
29 just what?

30 A. The total cost? Average rates -- you mean





1  
2 average cost?

3 Q. Yes.

4 A. Total cost divided by the number of units  
5 of sale or output, or however you measure it.

6 Q. And that is in the context of a uniform  
7 pricing structure?

8 A. Yes.

9 Q. You use the term "average rates" here in  
10 laying the ground work for the theory of establishing  
11 your maximum rates?

12 A. Right.

13 Q. And there would be no room, in your view,  
14 for any rate above that average rate? That would be  
15 the very top?

16 A. Yes, assuming that the -- well, I do not  
17 suppose one should think of anything too rigid here. I  
18 mean, the determination perhaps would not be, despite,  
19 as I said, the availability of better analytical tools  
20 and data than we have ever had before. Take the United  
21 States case, in the example I gave. I do not suppose I  
22 would say any rate over 178% of out-of-pocket cost is  
23 too high. I think that in terms of allowing for the  
24 difficulties of measurement that same leeway above this  
25 would certainly be permitted. But there is a point  
26 that this sets beyond which you do not go.

27 Q. And that maximum would apply to all classes  
28 of rates? Competitive and non-competitive alike?

29 A. Yes.

30 Q. To our agreed charges that we use in  
Canada?







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A. Right.

Q. To any rate at all?

A. Yes.

Q. Even if -- let me just take it right to an extreme position -- even if in a given competitive situation the traffic would move at a rate in excess of the average rate so established?

A. Well, this may be true of a lot of traffic that it would move at higher rates, but the purpose of maximum limits -- but this is the purpose of maximum limits --

Q. Recall that I said in a competitive situation.

A. Yes. In principle, I see no difference.

Q. On page 4, you speak of the necessity -- you say:

"It should be the task of regulators to develop the data and analyses which will permit within at least broad limits the determination of appropriate rate ceilings through external, objective measurement".

These are, as I understand what you were saying to Mr. Frawley, detailed cost studies, burden studies, and the like?

A. Yes.

Q. And I assume, as well, from your appendix III, that there would in addition be very extensive market studies?

A. These would be required, yes, indeed.





1  
2 Q. In point of fact, they would be required  
3 in a most elaborate and extensive order; would they  
4 not?

5 A. Well, this would depend upon the precision  
6 that one would attempt to reach -- how much leeway. I  
7 think the point we were addressing ourselves to a minute  
8 ago would be involved here. If the data that you are  
9 working with is more fuzzy, then certainly a greater  
10 range beyond some indicated amount would be called for  
11 in order to provide an insurance margin. If you rely  
12 on rather reliable data and extensive studies, I think  
13 this range could probably be narrower.

14 Q. But as a first step in the scheme, you  
15 would analyse what would happen if the railways moved  
16 to uniform pricing?

17 A. Right.

18 Q. From there, you determine the percentage  
19 above out-of-pocket costs which would be fixed as a  
20 maximum?

21 A. Right.

22 Q. Do you have to base that upon an  
23 assessment of the decline in traffic in the whole range  
24 of rate classification in order to see what the results  
25 would be in the hypothetical situation of a uniform  
26 pricing structure?

27 A. That is right.

28 Q. Now, with that in mind, would not the  
29 extent of market analysis have to be of the most  
30 exhaustive order?







1  
2 A. Well, certainly some  
3 generalization, it seems to me, would be possible. For  
4 example, for various categories of commodities with  
5 certain characteristics, the substitutability of rail  
6 for motor service kinds of price differentials -- that  
7 would involve a shift from one mode to the other --  
8 would be possible. In other words, what would be  
9 possible would be a rather high degree of generalization,  
10 I would think. I doubt if this would mean market studies  
11 for every conceivable movement of every conceivable  
12 commodity in commerce.

13 Q. What I am asking and pressing is this,  
14 Dr. Roberts. The results of these investigations is  
15 going to be the percentage figure that will be fixed?

16 A. Yes.

17 Q. And that is going to be a very important  
18 number?

19 A. Yes.

20 Q. Both from the shipper's point of view and  
21 the railways' point of view?

22 A. Yes.

23 Q. And with that in mind, it seemed to me  
24 that it would be essential to arrive at the appropriate  
25 number with as much precision and confidence as  
26 possible?

27 A. Exactly, yes.

28 Q. And I was just wondering to what extent  
29 generalization in the market studies that would be  
30 conducted would suffice?





1  
2 A. It would certainly not suffice for  
3 perfection. I think if they were 50% effective, some  
4 kinds of answers could be drawn. It would be better  
5 than the present system of no standards at all, except  
6 this comparative standard.

7 Q. Well then, would it be on a rolling base?  
8 Supposing, having conducted the number of studies market-  
9 wise with some reasonable -- without spending ten years  
10 on it --

11 A. Yes.

12 Q. -- that a number could be developed?  
13 A figure?

14 A. Yes.

15 Q. And that were fixed as a maximum  
16 percentage that would be allowed, and then in two or  
17 three years it were found that the railways were making  
18 a ridiculously large amount of money -- let us say, if  
19 we are going to be hypothetical, we could perhaps put  
20 it on that basis -- would this be subject to some  
21 review?

22 A. Oh, yes, I would say so. As costs  
23 changed, as output levels changed in terms of density.

24 THE CHAIRMAN: As you see it, in picking that  
25 number you would be increasing rates?

26 THE WITNESS: I do not contemplate any rates  
27 being increased, no. Decreasing those that exceed the  
28 ceiling that we are struggling to reach here.

29 THE CHAIRMAN: How would the railways get the  
30 revenue?





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Roberts, cr.ex.  
(Cumming)

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THE WITNESS: Well, this goes back to a  
question that Mr. Frawley asked me. I do not know how  
to deal with it in other terms except what I said, which  
I perhaps might repeat a bit of.

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1  
2 I might start with this: if, as the analysis would  
3 indicate, the same class coverage could be accomplished  
4 with uniform pricings as under the discrimination system  
5 and it is on the level where it is possible to establish  
6 this ceiling, then having this ceiling and some dis-  
7 crimination below that which would actually improve  
8 revenues over what they would be, if you really had  
9 all the low rates moved up to a higher level which  
10 provided additional revenues, that would help to make  
11 them whole. In other words, it gets down to the  
12 proposition I mentioned before that net revenues are  
13 as a result of a combination of a number of things and  
14 there is more than one combination of these that can  
15 provide the given volume of net revenues.

16 THE CHAIRMAN: Everywhere in the free world  
17 the complaint of the railways is that there is not enough  
18 money going into the till.

19 THE WITNESS: That is right, and perhaps to  
20 get back to the second part of the answer that I gave  
21 to Mr. Frawley -- perhaps we are, and I say "perhaps",  
22 trying to maintain too much investment in rail plant  
23 under present circumstances. Much of this is historical  
24 and actually it goes back to antiquity. As I said  
25 then, I am not sure that we can be assured that the  
26 market will support any given level of past railroad  
27 investment. I think we certainly have this in the  
28 United States that the market just will not do it and  
29 if the market will not do it there is nothing to be done  
30 about it. The alternative is to say that we will try





1  
2 to force this issue by permitting the railroads to  
3 charge as much as they can on some of the non-competitive  
4 or monopoly traffic. I am suggesting here that this  
5 is inconsistent with certainly our standard of pro-  
6 priety, and I think the Canadian standard of propriety,  
7 namely, that the sky is not the limit as to what people  
8 can charge for their services even though they can get  
9 it.

10 MR. CUMMING: Q. Well, now, you said that  
11 the level, the maximum, might be subject to adjustment  
12 from time to time?

13 A. Yes, I am quite sure it would have to  
14 be.

15 Q. We have had, and I think most people  
16 would agree, in Canada a rather agonizing experience  
17 in the past ten years or more in general revenue cases.  
18 Would it be, in effect, a general revenue case that  
19 would be required in order to adjust that maximum?

20 A. This would certainly be one way of  
21 showing the changed costs. It would certainly be a  
22 legitimate showing of a changed proportion of a  
23 changed number there.

24 Q. Just on that point, if the maximum is  
25 a percentage above cost, then until the maximum is  
26 changed that surely need only be applied to the figures  
27 that are developed in a cost study, and to that extent  
28 the rate structure would be self-adjusting, would it  
29 not?

30 A. I am sorry, I missed this.







1  
2 Q. Maybe I have missed it too. This  
3 is part of the difficulties under which we labour.  
4 The maximum scheme, and that is what all this purports  
5 to be, a scheme for fixing maximum rates?

6 A. Yes.

7 Q. And that is expressed in a percentage  
8 above out-of-pocket costs?

9 A. Right.

10 Q. So, if all that is changed is cost ex-  
11 perience and we are not going to change the maximum  
12 allowable above that then surely there is no need for  
13 a general revenue case there, this is self-adjusting.  
14 The railway knows today that its out-of-pocket cost  
15 is estimated and the maximum is 178 per cent of that,  
16 therefore, the rate by simple calculation is X. If  
17 its out-of-pocket cost on that same movement the  
18 next year is half as much again, then once again it  
19 is a simple matter of calculation?

20 A. Yes.

21 Q. But what I am interested in is how the  
22 178 per cent, how is that figure changed from time to  
23 time?

24 A. This figure would not be on the basis  
25 of this. In other words, if as a result of horizontal  
26 costing or broad costing ---

27 THE CHAIRMAN: Mr. Sinclair and Mr. Frawley  
28 will agree.

29 THE WITNESS: The percentage might well  
30 remain the same, depending upon traffic conditions.





1  
2 That is one thing that might change it, but as far as  
3 the cost increases are concerned the percentage would  
4 remain the same, which would then necessitate a rate  
5 increase to keep up with this. Just what administrative  
6 device -- whether this should be automatic or through  
7 a formalized procedure to establish the change in costs,  
8 I have not really thought about.

9 Q. Well, presumably if you have a maximum  
10 rate expressed in terms of a percentage above out-of-  
11 pocket costs then as long as that percentage remains  
12 fixed surely the sale of maximum rates is self-adjusting  
13 as cost conditions change?

14 A. Yes, that is right.

15 Q. That I understand. What I put to you  
16 a bit earlier was that on the assumption that the  
17 percentage had been settled as the maximum allowable  
18 proved to be ineffective, inadequate, railway revenues  
19 are away, away down, how is that percentage, that  
20 allowable maximum, to be changed? What review would  
21 there be of it?

22 A. Well, the logic of the situation is,  
23 I think, as I suggested before, that this does not  
24 contemplate the achievement by the railroads of any  
25 particular number of dollars of income.

26 Q. I see.

27 A. It is not a kind of cost-plus thing.

28 Q. That being the case, you do not con-  
29 template that the railways will be coming to the  
30 regulatory tribunal and saying they need more money





1  
2 and to change the 178 per cent to 210 per cent, and then  
3 they could manage. That just would not happen?

4 A. I would see no reason for it unless con-  
5 tinued analysis of the elements that go into this  
6 should take a change in the appropriate percentage.

7 THE CHAIRMAN: Who would choose the 178 per  
8 cent?

9 THE WITNESS: Well, this would certainly be  
10 a regulatory function, presumably the Board of  
11 Transport Commissioners, I suppose.

12 MR. CUMMING: Q. This then brings me back  
13 to the point from which I started. If it is not going  
14 to be changed when the railways come knocking on the  
15 door and say they need more money, then that surely  
16 points up the tremendous importance of picking the  
17 right number at the first instance?

18 A. Exactly, yes.

19 Q. And so it adds to the strain that is  
20 going to imposed on those who are going to do all these  
21 marketing analyses and so on and makes it almost vital  
22 that they be right the first time?

23 A. That is right, except for the qualifica-  
24 tion I have mentioned. You could be very liberal with  
25 this, say you come up with a figure of 178 per cent,  
26 and if there is concern about railroad revenue and you  
27 want to be sure you could make it 250 per cent.

28 Q. Well, then, of course, we might err in  
29 that way in favour of the railways?

30 A. Yes.







1  
2 Q. And the shippers are not going to be  
3 too happy?

4 A. On the other hand, I think the shippers  
5 will be better off than they are now, some of them.

6 Q. Within this level?

7 A. Yes. Well, we do not know anything -- at  
8 least, I do not know anything about these ratios with  
9 respect to Canada, but certainly this would be true in  
10 the United States. As I pointed out, there are sub-  
11 stantial volumes of traffic that move at what I would  
12 consider very high ratios on out-of-pocket costs.

13 Q. Something in the order of 400?

14 A. Yes, as high as 400; the volumes taper  
15 off, the higher you go, but if you go to double the  
16 out-of-pocket cost you get a good chunk of traffic.

17 Q. What sort of movement, from your examina-  
18 tion of the American situation, do you find moving at  
19 revenue out-of-pocket ratios of that order?

20 A. I am sorry, I did not total up figures  
21 or have them totalled up. Certainly, I could probably  
22 name some -- manufactured tobacco would be a case in  
23 point -- I mean, we are talking about over 200;  
24 400 level and from there to the 300, I am sorry I  
25 cannot give you specific commodities involved.

26 Q. Could you give us some idea where,  
27 apart from the specific commodities involved, have  
28 you any idea what volumes, how significant are these  
29 higher level ratio movements?

30 A. No, I cannot. The only measurement I





1  
2 have is the measurement of ton miles or the percentage  
3 of total sample over 178. As I say, it drops off  
4 the higher you go.

5 Q. And that was something of the order of  
6 25 per cent?

7 A. Of the traffic.

8 Q. One billion of the sample ton miles?

9 A. Yes, that is right.

10 Q. And that may be bunched, to some con-  
11 siderable extent, at around the 200 level?

12 A. Yes, it is. I have tabulations by  
13 blocks in there but I just don't remember the figures.

14 Q. Now, turning over to page 6, dealing  
15 with the ICC cost studies, you say:

16 "Cost studies of the Interstate Commerce  
17 Commission's staff indicate that at  
18 generally prevailing traffic densities  
19 costs are about 72 per cent variable  
20 and 28 per cent fixed."

21 Are those derived figures or can one look at these  
22 ICC cost studies and just pull these numbers out?  
23 I am not familiar with this; it is just a question of  
24 information.

25 A. No, they are derived. I don't quite  
26 get the distinction between derived and pulling them  
27 out.

28 Q. Well, does one look up in the ICC burden  
29 studies or the territorial costs and find a specific  
30 number?







1  
2 A. You can look in the preface, for instance,  
3 to the territorial cost scales which shows that these  
4 costs computed in here are predicated on the proposition  
5 that 80 per cent of operating expenses are variable.

6 MR. SINCLAIR: In excess of 80 per cent.

7 THE WITNESS: In excess of 80 per cent?

8 MR. SINCLAIR: Yes.

9 MR. CUMMING: Q. I am sorry we are all  
10 talking at once. How much?

11 A. My recollection is 80 per cent but I  
12 may be wrong. It would seem, however, when they are  
13 making calculations as they are doing here the only  
14 actual regional cost scales, they would apply to that  
15 a number -- Mr. Sinclair may be right -- in any  
16 case this is a figure, something about 80 per cent  
17 variability for operating expenditures invested in  
18 rolling equipment, 100 per cent variable with traffic  
19 in the low rate, investment at fixed plant, 50 per  
20 cent. You combine those together. For instance,  
21 in the burden study if you look at the total costs,  
22 the fully distributed costs, this is the total, and  
23 the overhead is exhausted if you take the figure for  
24 all traffic it will be one figure. You have another  
25 figure of the out-of-pocket costs and if you compare  
26 those to the year 1958 -- that is the last one I have  
27 seen -- if you compare the two for 1958, the balance  
28 remaining above out-of-pocket costs is 28 per cent  
29 of the total.

30 Q. I see. This is a figure, then, that you





1  
2 have developed from those ICC figures?

3 A. No, I would not say I have developed  
4 them. I have not engaged in any costing activity  
5 myself.

6 THE CHAIRMAN: You have taken it?

7 THE WITNESS: I have taken it, yes. It is  
8 computed, it is developed in this way.

9 MR. CUMMING: Q. By the same token that  
10 the scheme would require this very intensive market  
11 study, or fairly extensive market study, we have a  
12 substantial amount of work done along that line. It  
13 also postulates from your detailed cost analysis of  
14 the whole Canadian railroad operation before it can  
15 even be started?

16 A. Well, it depends on how generous the  
17 rate structures are. In the United States there is a  
18 great deal of regional uniformity for rate levels.  
19 For instance, in the famous Paint case the territorial  
20 carriers published a schedule of freight rates on paint  
21 that applies in the eastern territory. I think  
22 Professor Williams referred to this the other day.  
23 Generalization of the regional basis here would seem  
24 to me to be quite appropriate since prices are quoted  
25 on a regional basis. I do not think it would be  
26 necessary then to cost out paint movement for all  
27 possible combinations of ratios and distinctions or,  
28 for that matter, to cost out separately all the various  
29 commodities. There are, I think we can say, certain  
30 basic elements that are going to determine unit costs





1  
2 and many of them are recognized in the cost today such  
3 as empty return on equipment, the extent of loading  
4 will have a lot to do with it. For instance, if you  
5 get blocks of traffic that have comparable characteristics  
6 for costing purposes and for the purposes of this ad-  
7 ministration they can be lumped together.

8 Q. Does the fact that your scheme is con-  
9 cerned solely with maximum rates and not with minimum,  
10 allow of a somewhat less precise, more general costing  
11 technique than would be the case if one were trying to  
12 look at the other end of the scale?

13 A. I believe not necessarily. We just  
14 drew the example by relating this concept of this pro-  
15 position to the paint rates. The paint costing where  
16 the shipper has minimum rates was in this same generalized  
17 form. At least, it is not obvious to me to say that  
18 this could be more generous than where you are interested  
19 in minimum rates.  
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Q. The reason I asked that is if the railways today are going to establish a competitive rate or an agreed charge they may be called upon to defend that and show that it is compensatory?

A. Yes.

Q. And in order to do so and to meet the competitive situation they may find themselves faced with the problem of costing it with a very sharp pencil, if I may put it that way?

A. Yes.

Q. I am wondering whether, in your view, there is not simply not the necessity for that very detailed, very fine, work in costing work that would be necessary?

A. I think some agglomeration would be quite possible if you get comparable kinds of commodities, that could very well be lumped together in terms of the cost aspect.

Q. Going back to these demand studies, the market studies, that would be involved, have such studies been done in the United States?

A. The paint rates were preceded by a rather substantial cost study, yes.

Q. Done with a view to finding out what the impact of this new rate would be on the traffic offered?

A. Yes.

Q. Dr. Williams may have touched upon this: has that been followed up afterwards and the





1  
2 actual results measured against the anticipated?

3 A. I understand that one man from the  
4 C&O tried to do something about it. The only thing  
5 I know about it -- well, to answer your question,  
6 there has been no formal follow-up. There has been  
7 some effect of traffic shift, I gathered from a  
8 trucking friend of mine, but this is not particularly  
9 relevant to your question.

10 Q. Some traffic shift -- nothing like what  
11 was anticipated?

12 A. I am not sure, but he said they lost  
13 their paint traffic.

14 Q. I suppose such follow-up studies would  
15 also be necessary in this scheme in order to test the  
16 propriety of the maximum that the regulatory tribunal  
17 might fix?

18 A. Perhaps. I think really what is  
19 needed is a good understanding of the character  
20 of transport markets and something about the  
21 elasticity of transport demand. This gets back  
22 to the point mentioned before, that involves the  
23 generality of it. Some rather substantial general  
24 relationships, I believe, could be established about  
25 the kinds of market responses that are apt to occur  
26 in identifiable kinds of circumstances -- circum-  
27 stances with a number of variables, to be sure, but  
28 identifiable circumstances.

29 Q. At the bottom of page 6, when you are  
30 getting into a discussion of the table which appears







on the following page, you say:

"The last column translates the rate level increase into the corresponding uniform ratio of rates to out-of-pocket costs that would be required for full cost coverage where the average 1957 ratio was 139."

What is the source, or how was the figure of 139 developed?

A. I am sorry; that should be documented.

It is from the ICC burden study.

Q. For that particular year?

A. For 1957, yes.

Q. On page 8 you say:

"But since the elasticities are subject to conjecture at this stage of transport market analysis, it is impossible to assess accurately the traffic effects of uniform pricing or the uniform level of rates which would permit full overhead coverage."

This, of course, points out again the necessity of the market analysis that would have to be conducted?

A. Yes.

Q. Are you satisfied in the absence of studies of that sort having been made that there might not be a completely chaotic condition resulting from this situation?

A. Well, I would suppose some kinds of





1  
2 such studies with respect to elasticity of demand for  
3 transport services would have to be made as a preface  
4 or before any very substantial effort was made to  
5 implement such a system.

6 Q. If the freight rate structure is such  
7 that there are substantial segments of it which simply  
8 cannot move, ratewise --- cannot improve their rate  
9 position ---

10 A. I am sorry, I missed that.

11 Q. If there is a freight rate structure in  
12 which there are substantial segments which cannot bear  
13 an increase -- just assume that to be the case ---

14 A. Which can't?

15 Q. Cannot.

16 A. Cannot, yes?

17 Q. . . . for a variety of reasons; either  
18 they are fixed by statute or the competitive situation  
19 is such they won't move, or for any reason whatever  
20 it may be, can this scheme function?

21 A. I am not sure I see the drift of this.  
22 We are not talking about increasing any rates.

23 Q. As I understood it, there were some of  
24 the low rates that had to come up?

25 A. If they are a losing proposition. If  
26 they can't bear any more it would seem to me in the  
27 railways' self-interest they would not want to handle  
28 the traffic.

29 Q. It would simply have to be shed?

30 A. Yes.





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Q. And that must necessarily be the answer?

A. Or if public policy or proper social interest does not countenance this, then I think we get into the subsidy situation again. I think we are saying, if social purposes are served by hauling some kinds of traffic at a loss, the question arises as to who should bear the burden, and the answer I have given is that it should not be those shippers who can be forced by market circumstances to produce exactions which, on the basis of some external test, are regarded as excessive.

Q. On page 9, about the middle of the page: "The hypothetical level of rates should be competitively attractive in tapping the 72 per cent balance in this traffic reservoir; rates at 178 per cent of out-of-pocket costs would in 1957 have averaged 2.2 cents per ton mile, well below the regulated truck average cost."

A. Yes.

Q. Is that an out-of-pocket or a fully distributed cost? Is that a total cost figure?

A. That would be a total cost figure -- yes, the 2.2 is a total cost figure.

Q. What is the spread between -- oh, no; that 2.2 is not a cost figure?

A. This is average rates.

Q. Yes?

A. Yes, this is average rates.







1  
2 Q. What is the spread between that rate  
3 and the regulated truck average cost?

4 A. There, presumably -- unless there are  
5 any monopoly profits, which I gather there are not --  
6 this would represent average costs.

7 Q. What I am concerned about is this:  
8 if this scheme goes into effect, because of the discrimin-  
9 atory pricing techniques that the trucking industry  
10 might practise, is there anything in that that would  
11 inhibit the operation of your rating scheme, or do  
12 you think it can survive in spite of anything that the  
13 trucks might do?

14 A. I think it can survive. If I get the  
15 drift of the question, if these high rates were reduced,  
16 for example, to a ratio of 178 and this succeeded --  
17 let us say it was approximately half of truck costs --  
18 I suppose the railways would get a substantial proportion  
19 of this business -- not all of it because of other  
20 factors we have mentioned -- they would get a substan-  
21 tial portion of this increment, or, the reservoir, as  
22 we call it, that they are not getting, and make more  
23 money on it in many cases.

24 Q. Going on a little further, on page 11  
25 you have been discussing the question of elasticity of  
26 demand, and you say:

27 "In addition, although the demands in  
28 many cases would be highly elastic, some  
29 of the vast volume (nearly 60 per cent  
30 of the total) moving at ratios less than





1  
2 139 would continue to move at higher  
3 rates."

4 That traffic that is moving at ratios of less than  
5 139 is, I assume, what would be the equivalent of what  
6 we call our normal traffic in Canada?

7 A. I would suppose; some of it moving at  
8 slightly below average costs or average rates, some of  
9 it more and some of it way below, of course.

10 Q. And you would anticipate that even a  
11 substantial amount of that traffic would continue to  
12 move at the higher rate?

13 A. No, I didn't say "substantial". I  
14 said "some".

15 Q. You could not estimate it with any degree  
16 of precision, could you?

17 A. No, but as we said before, looking at  
18 this traffic above average it is in a pyramid. The  
19 higher you go the more it falls off, and generally the  
20 same thing is true as you go down below -- not completely  
21 true; in other words, a good chunk of this traffic would  
22 be presently moving on rates, let us say, from 139 to  
23 145 of out-of-pocket costs. Contemplating a hypo-  
24 thetical uniform pricing system, the amount of increase  
25 on rates on this traffic would be relatively small.

26 Q. But you do expect that any traffic moving  
27 at ratios between 139 and 178, that very substantial  
28 proportions of that would be retained?

29 A. Yes.

30 Q. As appears from your table on page 10.







1

2 Is the traffic that is referred to there also traffic  
3 that may be the equivalent of what we call normal traffic  
4 in Canada?

5 A. I just don't know. I am not conversant  
6 with this definition. I don't know what it is.

7 Q. The traffic I am talking about is the  
8 traffic moving at class and non-competitive commodity  
9 rates?

10 A. I would suppose in the higher reaches  
11 this would be true.

12 Q. I am wondering, when you were making this  
13 table, this analysis, if you had before you the Judgment  
14 of the Board of Transport Commissioners dated November  
15 17th, 1958, reported in 48 J.O.R. & R.?

16 A. I did not.

17 Q. It is page 26, and this might be a  
18 convenient place to leave the matter.

19 Mr. Chairman, I was going to ask Dr. Roberts --  
20 and he might like the evening to consider this --  
21 whether in making up the table which appears on page 10  
22 he had this material contained in the figures on page  
23 26 of that Judgment before him, and if he did not if  
24 he would like to consider the theory expounded here as  
25 to the measure of traffic which will be retained and  
26 to compare that against the showings of the railway  
27 figures that are contained in the Judgment. Perhaps  
28 we could leave it there.

29 A. I have not seen it, and I would like to.

30 THE CHAIRMAN: Well, Mr. Frawley, you have





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one more witness?

MR. FRAWLEY: That is right.

THE CHAIRMAN: Is he available tomorrow?

MR. FRAWLEY: Oh, yes, he is coming in tonight. He is available tomorrow. Whether he will be reached tomorrow is something else, but he is available tomorrow at ten o'clock.

THE CHAIRMAN: Then I understand Mr. Emerson is coming up?

MR. SINCLAIR: No, Mr. Chairman, I am advised by my friends that the Canadian Pacific case which is following the presentation of Alberta, that the witness will be Mr. Roberts first, followed by Mr. Edsforth, followed by Mr. Emerson.

THE CHAIRMAN: We want to ensure there will be continuity.

MR. SINCLAIR: Yes, the minute Mr. Frawley's case is completed we will have someone here to put into the box.

MR. FRAWLEY: And I hope that will be by Friday afternoon at the latest.

MR. SINCLAIR: We will have Mr. Roberts here whenever he is reached -- Monday, or Tuesday, or next week, or Friday of this week.

THE CHAIRMAN: Very well, we will adjourn now until ten o'clock tomorrow morning.

---Adjournment.



*Don & P. McTavish*

# ROYAL COMMISSION

ON

## TRANSPORTATION

### HEARINGS

HELD AT

OTTAWA

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NO EXHIBITS IN THIS VOLUME

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## E R R A T A

Page 17191, line 11:

Delete "efficacy"

Substitute "advocacy"

line 12

Correct spelling of "abolition"

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TORONTO, ONTARIO

ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held  
in the Court Room, Board of  
Transport Commissioners  
Offices, Ottawa, Ontario, on  
the 20th day of October, 1960.

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|                            |          |
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Ottawa, Ontario,  
Thursday,  
October 20, 1960.

--- On commencing at 10:00 a.m.

THE CHAIRMAN: Order, please. Mr. Cumming?

CROSS-EXAMINATION BY MR. CUMMING (resumed):

Q. Dr. Roberts, last day in the late afternoon we left the matter with a subject for your consideration overnight. It is outlined in the transcript, volume 103, at page 17333. It related to some figures that I had shown you from a Judgment of the Board in November of 1958.

You have a transcript -- or, would you like me to read that back to you? That is page 17333, starting at line 19.

A. Yes, it would be right at the end. Yes, I have it.

Q. I had asked you to consider the theory of the rate scheme that you are expounding in the light of the earnings picture shown by the railway figures that are reproduced in the judgment, a copy of which I left with you, and I invite your comment on that.

A. I have looked at this. It says, I think, a number of things. First, I think it does indicate that it is possible for people to make estimations of what will happen to traffic. Quite clearly, although no traffic figures are in here, certain unit prices are implied by the fact that we have a level of prices or





1  
2 rates, and we are contemplating increasing them. So,  
3 we have the price variable or the rate variable, and we  
4 have also, of course, the revenue of products. So, quite  
5 clearly this implies some units of traffic that are  
6 anticipated or realized at different levels of prices.

7 This is also done, I would suggest, in terms of  
8 some of the things we talked about yesterday on a rather  
9 broad basis. This may be an aggregation of a number of  
10 individual smaller analyses or studies. At least this  
11 was done; it was manageable, and it was done.

12 This is one thing I get from this. I cannot  
13 say that, in direct answer to your question, however,  
14 that I did not consider this in my analysis: this  
15 particular table. I have not seen it before. We were  
16 speaking, I think, of the figures I had introduced on  
17 page 10, in which I had roughly made an assumption of uni-  
18 tarian elasticity, suggesting that if, for example, rates  
19 are increased by 10% then traffic would drop off by 10%,  
20 and you would come out about the same.

21 I am impressed in this way with the data in  
22 here. For example, we go from 1951 to 1952. This is the  
23 first full table on page 27, to which you referred me I  
24 believe. It would be a 9% increase in rates. Revenues  
25 are fairly stable, 24.3 in one year; 25.5 in the next.

26 MR. FRAWLEY: Just for clarity's sake. Page  
27 27 -- to identify it, you are referring to the Judgment  
28 of the Transport Board in the 17% case?

29 THE WITNESS: Yes, sir.

30 MR. FRAWLEY: The second 17% case, 1958.





1  
2 THE WITNESS: Yes.

3 Another way of looking at this: I do not know  
4 what to make of these last two years, where the figures  
5 jumped up very rapidly. Not being conversant with the  
6 background, it might appear there was some change in  
7 classification, or something of the sort. I have my  
8 doubts that the 11% increase in 1957 would, by itself,  
9 occasion nearly a doubling of these revenues.

10 So, taking this out of account, if we take the  
11 earlier years, starting from 1949, the average revenue is  
12 about 33.0 here, and we start with the level of 34.8.

13 What I am trying to suggest is if this  
14 question you have directed to me is related to my  
15 assumptions, and the figures produced from those  
16 assumptions on page 10, that this would seem to confirm  
17 to me the assumption of unitarial elasticity, although,  
18 based on certainly no exhaustive study on my part, would  
19 seem to fit the bill for the data you have suggested here.

20 Q. Just to recapitulate this, so far as  
21 traffic that is moving on rates which are above the 178%  
22 ratio, there is, in the theoretical basis of your scheme,  
23 an assumption, that there is a high degree of elasticity,  
24 and that the reduction of rates would result in a  
25 substantial expansion of that traffic?

26 A. This is not an inherent part of the scheme.  
27 Simply looking at the United States picture, with what I  
28 consider the rather inadequate adjustment of high railroad  
29 rates, the motor carrier competition, it is my feeling  
30 that this traffic would be highly expandable.







1  
2 We suggest in the traffic categories the  
3 railways are carrying only 28% of it. There is a large  
4 reservoir there that would be tapped and quite profitably,  
5 if the rates were reduced along the lines we are speaking  
6 of.

7 Q. And, similarly, in the case of traffic  
8 moving at rates below the 139¢ ratio there is likewise a  
9 substantial degree of elasticity?

10 A. No, I am not saying that, sir.

11 Q. Well you say, Dr. Roberts, that only some  
12 of that traffic would be retained?

13 A. Yes.

14 Q. If the bottom rates are pulled up?

15 A. Yes.

16 Q. Does it not follow from that that there is  
17 a high degree of elasticity?

18 A. Well, of course some is a rather loose  
19 word.

20 Q. So is high, I suppose?

21 A. Out of 1,000 units, one would be sound;  
22 600 would be sound. This is a sort of a catch-all. I am  
23 suggesting, really, that in terms of the hypothetical  
24 change we want to keep this in mind, too. If we take the  
25 178 that we have seized upon, which is largely illustrative  
26 on the basis of a not exhaustive consideration of the  
27 United States data -- but, it is useful for illustration  
28 and has given us a point of reference to talk about here  
29 -- the scheme, as you call it, would contemplate  
30 reduction of rates to 178. It would not contemplate --





1  
2 I want to make clear -- the actual figures of these  
3 rates below this; as I have indicated on several  
4 occasions, the purpose of the analysis really here is  
5 to indicate "what if".

6 So, with this in mind, I am saying here, with  
7 respect to the traffic presently bearing rates below  
8 average costs, some of those would be retained. I am  
9 suggesting, if you do not get too far away from the 178,  
10 and in a range of traffic where rates are presently above  
11 average, the elasticity would probably not be very great.  
12 That is, given percentage reduction in rates would  
13 probably not occasion any substantial wiping out of the  
14 traffic, whereas I think in sectors below 139 one could  
15 concede that perhaps in this hypothetical case there  
16 would be a substantial wiping out of this traffic. But  
17 with what we have seen with respect to the rates, the  
18 traffic moving at rates above 178 -- between 139 and 178  
19 -- for our present purposes not much of this low-rated  
20 traffic is really necessary for the case.

21 Q. In any event, it is not, if I understand  
22 what you say, an essential of your scheme that lower-  
23 rated traffic be brought up?

24 A. Well, it is not contemplated that this  
25 should be done. It is an essential of the scheme that  
26 the inquiry would be made: What would happen to the  
27 traffic in total -- all traffic including that presently  
28 moving at high rates and that presently moving at low  
29 rates -- if there were no discrimination.

30 Q. Oh, I see. Merely as the study in order







1  
2 to arrive at the proper maximum to be set?

3 A. That is right. That is right.

4 Q. That having been done, there is no  
5 necessity under your scheme for any rate action other  
6 than the imposition of the maximum and the bringing down  
7 of any rates in excess of that to that maximum level?

8 A. That is right.

9 Q. And that is the only rate action that  
10 would necessarily follow from the scheme?

11 A. That is right.

12 Q. I see.

13 A. I might append something there. From the  
14 scheme itself, as we are calling it, this does not take  
15 account of the possibility -- and I emphasize possibility  
16 -- that there may be rates which, if the railroads  
17 are to remain whole and to maximize their revenues with  
18 this qualification of an independently established  
19 ceiling, should perhaps be brought up in their own  
20 interests, but this would not be a regulatory function.

21 Q. Yes. That is the point I was getting at.  
22 That is purely something for the railroad rate  
23 maker and the traffic men?

24 A. First to detect such cases, if any, and  
25 secondly to do something about them, if they want to.

26 Q. I see. Now, just a point of information  
27 or clarification on page 15, Dr. Roberts, in connection  
28 with your use of car-mile revenues which you rely upon  
29 in order to develop the application of this. You say:

30 "While an imperfect indicator for this purpose





1  
2 some of the ambiguity in this measure can be  
3 reduced by stating the car-mile receipts for  
4 particular movements as a ratio of the average  
5 revenue for each distance in order to reflect  
6 the normal taper in rate scales and to  
7 neutralize the terminal factor".

8 I just invite you to elaborate and to explain  
9 how this, the normal taper in rate scales, is reflected  
10 in these ratios and how terminal factors are  
11 neutralized?

12 A. Well, basically what this says is -- well,  
13 in terms of the distance factor -- that it would be quite  
14 inappropriate to compare car-mile revenues of 100 mile  
15 haul and a 1,000 mile haul: that the cost functions  
16 themselves do not follow this form. Certainly, the  
17 importance of the terminal factors is another matter  
18 involved here.

19 If you move a car 100 miles, you have what  
20 is for each shipment a constant kind of overhead charge  
21 against it; namely, the terminal work that is done. And,  
22 then, you move that car in each 100 miles, quite clearly  
23 this constant terminal factor is going to bear more  
24 heavily on that kind of shipment than one that moves  
25 1,000 miles.

26 For this reason, it is not appropriate to  
27 compare the car-mile revenues of hauls of substantially  
28 different distances. The comparison then, I pose and  
29 actually make, is to get the same sort of a norm by  
30 standard for each range of distance that you can compare





1  
2 the car-mile revenues yielded on certain traffic,  
3 specific carload of traffic, in terms of the norm or  
4 average for the country for that same distance.

5 Q. I see. In other words, it is purely an  
6 attempt on your part -- a proper attempt; I am not  
7 suggesting otherwise -- of making sure your comparisons  
8 are like with like?

9 A. That is right. I say this removes some  
10 of the ambiguity. It certainly does not remove all.

11 Basic to this subject, I think, is the  
12 proposition that the car-mile costs and, there, the car  
13 costs will be about the same for all different car-miles  
14 of service performed, quite clearly there will be  
15 matters of varying traffic densities on parts of the  
16 system, and at this level of analysis it simply was not  
17 possible to deal with all these variations.

18 This distance one is an important one, and  
19 perhaps the most important, and this can be dealt with  
20 in the way I have done.

21 Q. On page 16, you say:

22 "In United States Official Territory revenue-  
23 cost ratios of 210 correlate rather closely  
24 with car-mile revenue ratios of around 140."

25 A. Yes.

26 Q. "Rather closely", Dr. Roberts? How  
27 closely?

28 A. Well, I did not compute the co-efficient  
29 of correlation here. I plotted the two sets of data,  
30 and while it is necessary, I suppose, to deal in







1  
2 relative terms; but there was rather a close following  
3 of a regression line, suggesting that close clustering  
4 there. Reading off from one axis, which shows the  
5 revenue out-of-pocket cost ratios, this leads you into  
6 a whole cluster of car-mile revenue ratios of 140. This  
7 is the general area of these.

8 Q. Even though car-mile revenues may be high,  
9 I suppose car-mile costs associated with those revenues  
10 might be similarly above the general line; similarly  
11 high; might they not?

12 A. Well, this is true.

13 However, as I pointed out yesterday, the range  
14 in these ratios is very, very broad, running from  
15 around 3 to well over 300. I would be surprised if the  
16 variation in car-mile costs would be anything of that  
17 magnitude.

18 Q. Why should there be any relationship at  
19 all between car-mile revenues and car-mile costs? Is  
20 there any tie between them?

21 A. Well, a basic assumption here is that the  
22 car-mile is the fundamental unit of output, in a sense  
23 your producing capacity measured by car-miles, and  
24 that by and large each unit of this capacity output is  
25 going to vary, not substantially -- at least not within  
26 the range of the variation to car-mile revenues for  
27 given distances.  
28  
29  
30





1  
2 Q. Just another short point of information.  
3 At the bottom of page 17 in discussing the previous  
4 figures that are referred to you point out:

5 "The secondary concentration (17 cases)  
6 in mines products is, however, noteworthy,  
7 along with the virtual absence of repre-  
8 sentation among animals and forest products."  
9 "Noteworthy", what is the significance? Why do you  
10 make that comment?

11 A. I am simply saying that we are talking  
12 about discrimination and this is a crude attempt in the  
13 absence of better data to measure something about the  
14 kind of discrimination in Canada. One normally  
15 thinks of this as being at least -- discrimination on  
16 the high side being associated with relatively high  
17 grade products that are classified in the manufactures  
18 and miscellaneous class. One would expect, I think,  
19 to find this rather broad margin between the costs and  
20 rates, costs and revenues, in manufactures and mis-  
21 cellaneous. However, the rates on mine products  
22 from 100 pounds or tons are rather generally low. I  
23 am simply suggesting even in the relatively low rates  
24 it can be associated with even lower costs per unit  
25 so that substantial amounts of discrimination can  
26 occur even with respect to relatively low rates.

27 Q. Coming back to the scheme, your rate  
28 making proposal, I want to examine some of the con-  
29 sequences of it. The system, just to recapitulate  
30 for a moment, is one under which the rate structure has







1  
2 a ceiling set in the manner that you have described;  
3 there is, I assume, a floor being out-of-pocket costs,  
4 and the area in between is left to the judgment of the  
5 rate making people in the railways?

6 A. Right.

7 Q. And those are the only limitations that  
8 you envisage?

9 A. Yes.

10 Q. Well, now, if we had a rate structure  
11 based on that scheme in Canada would that replace the  
12 Canadian Freight Classification?

13 A. I do not know how to answer that. I  
14 do not see why it should replace the classification.  
15 There may be some classification in rates and ratings  
16 that would exceed the ceiling and that would have to be  
17 modified but I see no reason why this way of arriving  
18 at and publishing rates should be altered.

19 Q. Well, would there be any necessity for  
20 a classification at all as far as it sets the maximum,  
21 the maximum being set under your scheme?

22 A. Well, perhaps I do not see the same role  
23 for classification as you do. I regard it as a way,  
24 a technique for a company with very complex pricing  
25 problems, providing a rather simplified method of making  
26 this available.

27 Q. I have never heard of anything being  
28 accused of being simple.

29 A. Well, it is a short cut, it is much  
30 more simple than if you had to get out a catalogue like





1  
2 Sears, Roebuck does and have a specific price quoted for  
3 every conceivable service that you are offering to the  
4 public. In that case this would fill many rooms. I  
5 think you can see it is a short-cut device. It is a  
6 complex one, sure, but it is the role I see for  
7 classification of weight to lump things together into  
8 general relationships that are relative. Perhaps you  
9 might have paint and then perhaps some other kind of  
10 product, but for transportation purposes they are similar  
11 so we will put them in this pot and go from there.

12 Q. If your system were operating what  
13 effect would it have on equalization of rates?

14 A. I am not sure I can answer this.

15 Q. I am talking about maximum, of course.

16 A. I could not answer it specifically be-  
17 cause I do not know. No one knows if this test were  
18 employed what the appropriate level of rates would be.  
19 If any of the equalized rates were higher than the  
20 indicated ceiling they would clearly indicate they  
21 should be brought down. It would appear to me also  
22 if none of the equalized rates were in this category  
23 it would have no effect on the position.

24 Q. Would there be a different maximum for  
25 varying routes, your maximum as I understand it being  
26 a percentage above out-of-pocket cost?

27 A. Well, this depends, I would suppose, on  
28 the refining that you want to give to it. If you  
29 regard the railways as a system, a sort of national  
30 institution serving the commerce of the country, it





1  
2 would be quite appropriate to continue the system as a  
3 whole. On the other hand, if you think certain portions  
4 of it could be lopped off and say there was a section  
5 from A to B that stands by itself, it does not depend  
6 on bridge traffic from anywhere else, it just serves  
7 isolated special needs, this would be a different thing.  
8 But it may be a railroad between those points would be  
9 different. I think the latter point of view is un-  
10 realistic, one which would seem to me the only meaning-  
11 ful way in a nation that is faced with substantial  
12 amounts of trade. First, the railroad system,  
13 particularly here where you have transcontinental  
14 to serve the needs, you regard as a system which is all  
15 part of a package. I would not suggest, then, that  
16 the ceilings based on this concept should be differen-  
17 tiated by routes or territories.

18 Q. They would not be differentiated?

19 A. Would not be.

20 Q. Well, let us assume that we have movement  
21 from Toronto to Winnipeg and there is a number of ways  
22 of getting there by rail and there is a difference in  
23 mileage and one of the lines might be a far heavier  
24 density line than the other, and presumably the costs  
25 on that are higher.

26 A. On the high density line?

27 Q. On the low -- lower on the high density  
28 line, we will assume, and higher on the low density  
29 line. Now, which line is going to be the yardstick  
30 to set the maximum rate for the movement of a particular







1  
2 commodity from point A to point B joined by these two  
3 lines?

4 A. Which line is going to be the right  
5 determinant from the standpoint of any system, as far  
6 as efficiency I would suppose the rates would be established  
7 on the more efficient line.

8 Q. And that would run through the operation  
9 of your scheme?

10 A. Yes, but the application of the ceilings  
11 would not in contrast to other proposals, or, at least,  
12 other proposals that have been made here, be related  
13 to charges or rates on one route versus another. In  
14 other words, what I am saying is, I am not sure I see  
15 the relativeness of the question for this particular  
16 concept.

17 Q. Well, as I understand the situation  
18 the maximum rates are a percentage of the out-of-  
19 pocket cost?

20 A. Yes.

21 Q. Now, surely when you are thinking of the  
22 maximum rate for the movement of a particular commodity  
23 it is related to the cost of handling that commodity  
24 from point A to point B?

25 A. Yes. Well, to go back to the illus-  
26 tration, the line with the highest costs -- it seems  
27 to me this is an academic question, if I may use such  
28 a horrible term.

29 Q. I am a little frightened about being  
30 academic.





1  
2 A. It is an academic question.  
3 Quite clearly if the line with the highest cost is going  
4 to compete it is going to have to shade its rates on  
5 the basis of the cost of that lower cost carrier on  
6 the rates they establish. It seems to me the ceiling  
7 would not be a particularly relevant thing there.

8 Q. In a rate structure based on this scheme  
9 would there be any place or any necessity for what we  
10 know here as the One and One-Third Rule, which I assume  
11 you have heard about?

12 A. I have heard about it- it has to do  
13 with long and short haul discrimination.

14 THE CHAIRMAN: The Spokane principle.

15 THE WITNESS: Yes. Well, no, I see none  
16 except to the extent that the intermediate, the highest  
17 intermediate rates, did exceed the ceiling, I suppose  
18 then it might have this kind of connection. In  
19 this particular formula, percentage relationship is  
20 based upon some going level of rates at intermediate  
21 points and they should be reduced, then it may logically  
22 follow that the specific relationship, the numbers  
23 employed in the formula, might need to be changed.

24 Q. This could be an additional protection  
25 for the intermediate points operating within the con-  
26 text of your maximum freight rate regulations?

27 A. Yes, it could be, although my conception  
28 of long and short haul discrimination is not necessarily  
29 the inflation of intermediate rates. It is a result  
30 of depreciation, what it wants, but this could be the







1  
2 case, this would result in a lowering of some inter-  
3 mediate rates.

4 Q. What I was trying to find out is, is  
5 the maximum that you set under your scheme the only  
6 maximum which you consider should be required or do  
7 you feel there should be other maxima imposed such as  
8 are imposed under the One and One-Third Rule?

9 A. Well, I can only say this: we are  
10 dealing here, I think, basically with a truly valid  
11 economic concept. Administration is one other thing  
12 I think in any kind of guide lines. Harsh rigidity  
13 is no doubt a terrible mistake, and I certainly would  
14 not argue for a minute that in the first place, as I  
15 suggested yesterday, I am not sure we can come up with  
16 precise measurement. This figure of 178 is based  
17 on an analysis, and some kind of leeway may well be  
18 called for in this direction. I think also adminis-  
19 tratively some kind of leeway should be called for  
20 in special kinds of cases. Keeping in mind, the  
21 validity of this proposition that the goal of the  
22 regulators seems to me, and this is what I am essen-  
23 tially arguing for, despite all the absence of illus-  
24 trations, I think that this ultimately should be the  
25 social test, that when people pay more than they pay  
26 according to this standard I am prescribing here, they  
27 in some way are paying too much.

28 Now, keeping that in mind I certainly would  
29 not say you draw a harsh final line and just say that  
30 is it. Certainly there must be an administrative





1  
2 flexibility of some kind in any kind of freight regula-  
3 tion.

4 Q. Now, turning to page 19, after summarizing  
5 the system you say:

6 "The foregoing discussion has emphasized  
7 output-cost-price relationships that would  
8 maintain under uniform pricing the financial  
9 support for the rail system achieved by  
10 discrimination. This support requirement  
11 is itself open to question."

12 Would you elaborate on that? What do you mean when you  
13 say the support requirement is open to question?

14 A. Perhaps one way to say it would be to  
15 suggest that an object of public policy, I believe, is  
16 not to secure for railroads as business enterprises  
17 any particular relationship between total revenues  
18 and total costs. Perhaps it would be better in here  
19 to say this has some qualification to it, the pro-  
20 ceeding unless gauged in terms of how much of present  
21 traffic would have to be retained at what level of  
22 rates reflecting the associated average costs in order  
23 to produce some, not the same, revenues, because the  
24 total cost would be less with less traffic, but the  
25 same overhead that you have under discrimination. I  
26 am realizing that and saying it is not an end or a goal  
27 but the railway should be given every opportunity, of  
28 course, to make as much money as they can and within the  
29 limits of the system we are providing here. That is  
30 really the burden of this paragraph which, of course, is







1  
2 elaborated on in the next paragraph.

3 Q. Yes, in the next paragraph you say:

4 "If a normal return is appropriately  
5 construed as that accorded under competition,  
6 there is no reason to have to 'make up'  
7 anything on that portion of the company's  
8 business that is not subject to competitive  
9 pressures."

10 A. Yes.

11 Q. Well, now, how can that apply? How  
12 do you apply that proposition that is enunciated there  
13 to an operation which is not completely free to carry  
14 on its activities but is obliged to operate subject to  
15 a maximum set of prices that it can charge for its  
16 product subject to obligations such as this obligation  
17 to maintain unremunerative services and the like? How  
18 does that square with those requirements?

19 A. I think I have squared it with those  
20 requirements. I do not think any business enterprise  
21 should in general be required to render unremunerative  
22 services, but if it is required in the public interest  
23 then the question comes down as to who should pay for  
24 it. What really this would come down to is this, if  
25 you have these kinds of burdens quite clearly the market  
26 is not going to support them at reasonable prices. For  
27 instance, in the steel industry. If we say to the  
28 United States Steel or one of your manufacturers here --  
29 take this paper plant across the river, 4-11 we tell  
30 them that newspapers are very important social







1  
2 institutions and we want them to give newsprint to all  
3 the newspapers in Canada or we want them to sell it  
4 for some nominal amount, and then send them out to  
5 compete with the world, we would be putting a millstone  
6 around their neck. How far would they get with  
7 United States competitors or any other competitors in  
8 the world by trying to set prices to cover the cost of  
9 providing free newsprint to the Canadian newspapers?  
10 That would be a terrible thing. I am simply using  
11 this illustration to suggest that the market itself,  
12 people making purchases and sales decisions, will not  
13 pay prices that will do this unless there is some kind  
14 of latent or residual monopoly power.

15 Now, how can this be financed if it is good  
16 public policy to provide newspapers with this low-cost  
17 or free newsprint? There are several ways. In the  
18 first place, you could have a protective tariff of  
19 such magnitude as to shut out any foreign competition.  
20 You could do a number of things there with other pur-  
21 chasers of the product, whether it is typing paper or  
22 whatever it is, to have them pay these prices.  
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1  
2 Another question is, should the purchasers of paper  
3 products be the ones who should bear the burden of this  
4 social goal of providing free or very nominally priced  
5 newsprint for Canadian newspapers? I say not. It seems  
6 to me it is clear cut they should not. If there is such  
7 a social policy, and it may be good policy -- I think,  
8 Professor Williams indicated the other day, or I will  
9 indicate -- there comes a times when economics does not  
10 determine this. These are basic political and social  
11 values that have to be determined. But, when you come  
12 to this stage, you have to make these decisions on a  
13 political basis.

14 I suspect I may have strayed a bit from the  
15 question, but not too completely.

16 Q. I just want to crystalize the idea, then:  
17 there are two essential companions to your scheme; one  
18 is complete freedom to the railways to abandon  
19 unremunerative services, or whatever may be necessary,  
20 in order to improve their earnings picture, and that is  
21 subject to the second one that in any area where for  
22 reasons of public policy, national interests, local  
23 requirement, or whatever it may be, they are obligated  
24 to carry on a service which they would otherwise not,  
25 and that must be borne by a subsidy of some sort?

26 A. In a sense I would say this is a  
27 companion piece; it is part of the package. I am  
28 suggesting there should be more realistic, or, at least,  
29 ceilings derived by more valid concepts than are  
30 presently employed. Certainly, one of the purposes of







1  
2 these ceilings is to prevent this incidence of the  
3 burden on these shippers from whom the costs of this  
4 kind of uneconomic activity can be exacted.

5 Q. And you perhaps sum that up on page 23  
6 where you say "if investment in railway plant beyond  
7 the indicated level is regarded as socially desirable  
8 its support should be provided by the economy generally  
9 and not by a limited group of producers and consumers."

10 A. Yes, this is, I think, essentially the  
11 political decision.

12 Q. And that proposition would apply both to  
13 past investment and to any future investment that may be  
14 made or may be required to be made, or required to be  
15 maintained if it is past, in any unremunerative service?

16 A. I would think so, yes. In other words,  
17 it is a question, first, of supporting the past  
18 investment which you may or may not do, if all these  
19 handicaps will not support it, and there may be a  
20 question of the same kind of support for future  
21 investment: "we want to modernize the yard" -- because  
22 there is not enough business to justify it -- but "we  
23 want a modernized yard", and there are two ways to get  
24 it, if we have the kind of situation we have described  
25 analogous to our paper manufacturer: either by  
26 assessing levels of charges which violate what I  
27 consider economic standards, or some other kind of  
28 public support.  
29  
30





CROSS-EXAMINATION BY MR. MAURO

Q. Dr. Roberts, I have only one or two questions as to the application of this scheme. I think there is general agreement that the philosophy behind it, that one part of the economy should not be asked to bear the disproportionate share of the burden of providing transportation facilities, under the rationale of this scheme, as I understand it, is that the costs of the carrier will be more closely examined, that as a result of this examination a fully distributed level will be determined in dollars and a percentage above this will be determined as the new ceiling or maximum?

A. Yes, although we have related it, in our discussions here, to out-of-pocket costs which I think is more appropriate.

Q. Yes. Does this contemplate that all carriers in Canada will now come under strict regulation and have their rates fixed by a cost level on out-of-pocket?

A. You mean the non-rail carriers?

Q. Yes.

A. No -- well, I have not gone into this, as you know, and I have not thought of it in these terms, but I certainly would be the last one to come here and advocate a close control of the trucking industry in Canada. I would not dare after my record in the United States.

Q. For example, there is a movement from





1  
2 Winnipeg to Portage la Prairie, a town 45 miles west of  
3 Winnipeg, and from the economic standpoint trucking is  
4 the best means of shipment; we will assume that the most  
5 efficient way for the economy is to have that traffic  
6 moved by trucks. The railways have their costs  
7 established, and their rate comes out to \$1.00 a  
8 hundred pounds on a particular commodity to Portage la  
9 Prairie. As a matter of fact, the truck costs are 80¢  
10 -- they could do the same service for 80¢. What I am  
11 worried about under your scheme is that the unregulated  
12 carrier will use the rail costs as an umbrella, and we  
13 will not obtain the best allocation?

14 A. I think this is inevitable. To get back  
15 to your first question, I think this depends entirely  
16 upon how seriously you regard this problem. If this is  
17 in any way a representative case, I would suppose that  
18 you would want to give consideration to doing something  
19 about it. If it is isolated, then I think there is the  
20 social question, "do we want to suffer all the pains  
21 that go with establishing a system of control like  
22 this for rather nominal advantages?"

23 Q. Whether we want to establish the  
24 controls on other carriers?

25 A. Yes, to put a complete system of  
26 controls on trucking in order to mitigate occasional  
27 difficulties; but, certainly, I think in the United  
28 States this has not been our problem. We have not  
29 been concerned with motor carrier rates being too  
30 high. This has been a very minor part of the







1  
2 regulation of motor transportation. It has been the  
3 other way, as much of our regulation has been in  
4 recent years. It could conceivably be a problem here.  
5 If it is, I am not aware of it. If it is, you will  
6 have to consider it.

7 Q. It would have to apply also to Great  
8 Lakes shipments?

9 A. Yes.

10 Q. Because they would come under the  
11 umbrella.. It is my opinion, Dr. Roberts, under this  
12 scheme the low cost carrier would not reflect his  
13 lower costs to the degree it should be possible because  
14 he would use these higher rail rates as the umbrella??

15 A. I think we are getting into a different  
16 question, Mr. Mauro. In other words, the alternative,  
17 it seems to me, that would serve the interests that  
18 you are suggesting would be far closer control so that  
19 you do not have a ceiling established to pass some  
20 economic test, but a ceiling that is specifically  
21 related in each case to the relative costs of alternative  
22 modes, and this kind of discrepancy you are speaking of  
23 could not arise. But I think this is a kind of control  
24 neither you or I would want.

25 Q. I definitely would not, and I am  
26 wondering whether the type of control we want is not  
27 a control of minimum rates. In other words, I am  
28 suggesting, for example, the alleged injustice that was  
29 represented by that exhibit in the 17% case.

30 A. Yes.





1  
2 Q. Where you saw what was going to happen  
3 after the 17% judgment and how they expected to get  
4 this money: 75% of the increase from 32% of the traffic,  
5 which resulted because certain traffic was not going to  
6 bear its proportion of the increased cost, either  
7 because it was unable or because of agreements that  
8 were in effect and could not be changed immediately.

9 A. Yes.

10 Q. If, in fact, all of the competitive  
11 traffic including agreed charges and statutory rates  
12 could have taken a proportion of their increase, then  
13 the captive traffic would have taken a lesser increase.

14 A. That is true.

15 Q. And perhaps its proper share of increased  
16 costs?

17 A. Yes.

18 Q. Therefore, I am suggesting to you, that  
19 perhaps the avenue that should be investigated -- and I  
20 would like your comments on it -- is minimum rate  
21 control -- more cost-oriented minimum control so as to  
22 see that the railways are not under-pricing themselves  
23 which results in this burden being cast on other  
24 traffic?

25 A. Again, if this is a problem, if there is  
26 any basis for feeling the railway services are under-  
27 priced, in a sense it is their business and in a sense  
28 it is not. It depends what they do besides under-price  
29 the services. If they under-price some and then expect  
30 certain shipper groups to pay the penalty, that is one







1  
2 thing. If they want to pay the penalty for their own mis-  
3 stakes, that is something else. What we are suggesting  
4 here is that there is then an effort to pass the  
5 penalty of mistakes along. I do not see in the case you  
6 have mentioned, however, that minimum rate control is  
7 the answer, if, as you suggest, the market circumstances  
8 are such that a higher rate would not be a better rate,  
9 but a less desirable rate.

10 Q. Well, I am suggesting, now that we have  
11 the techniques better developed for costing, and some  
12 administrative tribunals to periodically check the  
13 basic cost to the railways of moving traffic, we would  
14 be in the position then when time for increases due to  
15 inflationary pressures or otherwise came about, that we  
16 could then investigate whether or not certain traffic  
17 should be shed by the railways.

18 A. Yes.

19 Q. When, whether due to managerial decision  
20 or otherwise, the railways may say, "we will go along  
21 with it".

22 A. I hesitate to speak to the subject of  
23 minimum rate control because it is not the subject of  
24 my brief, but to the extent it is associated with what  
25 is the subject of my brief there is this connection you  
26 have pointed out, and I would suggest that whatever is  
27 needed, so long as there are these social overtones,  
28 whatever is needed for preventing what I have called,  
29 and as I indicated in the first part of my statement here,  
30 these gratuitously low rates are an aberration in sensible





1  
2 discrimination. They put undue burdens elsewhere. The  
3 most extreme case of these such rates are those that are  
4 below cost, but when we are at the low margins even rates  
5 above cost may be offensive in this respect, and I think  
6 it certainly is important to assure, not with perfection  
7 -- our paper manufacturer over here is not pricing his  
8 product perfectly, I would say, nor does U.S. Steel; we  
9 do not get perfection, generally -- and we want  
10 reasonably tolerable results, and certainly substantial  
11 blocks of traffic moving at low cost from the social  
12 standpoint as well does not reflect that, because it  
13 does have these overtones or implications for the whole  
14 economy.

15 Q. I was not clear in your discussion with  
16 my learned friend, Mr. Cumming, as to, under your scheme,  
17 what would replace the present requirements formula?

18 A. The requirements formula is where rate  
19 adjustments will be made to give a given volume ---

20 Q. A permissive level of earnings.

21 MR. FRAWLEY: Instead of a rate of return on a  
22 rate base.

23 THE WITNESS: Taking actual dollars?

24 MR. MAURO: Q. The C.P.R. is the yardstick  
25 road in Canada, meaning it is their requirements which  
26 set the permissive level of earnings, and they are  
27 permitted something in the neighbourhood of \$54 million  
28 to meet their operating expenses and pay a dividend etc.  
29 What would replace this under this scheme?

30 A. This requirement, I would have to say,







1  
2 would be eliminated, which would work both ways.  
3 Instead of \$54 million it may be \$50 million or it may  
4 be \$60 million, which would seem to me appropriate so  
5 long as the rates are not excessive along the lines that  
6 we talked about. In other words, I think then the  
7 railways should be able to go into the market place and  
8 do what they can with their competitors. The more  
9 efficiently they run their business, it is more apt to  
10 be \$60 million than \$54 million; the better they price  
11 their services, it is more apt to be \$60 million than  
12 \$54 million. The worse they do, it is more apt to be  
13 \$50 million, obviously.

14 Q. The present requirements formula would  
15 be eliminated and the regulatory body would from then  
16 on simply check individual groups of rates or individual  
17 rates to see that they are not above this ceiling?

18 A. As far as I can think. There are some  
19 minimum standards that require regulatory action upon  
20 complaint. Certainly, this would be part of the job.  
21 Well, I think it would do what any regulatory body  
22 should do -- talk about rate ceilings. It seems to me  
23 this is the normal, appropriate function of regulation.  
24 Basically, it comes down to something like this: if  
25 this is no problem, if there is no purpose in this kind  
26 of control, then I think the whole question of regulation  
27 is suspect.

28 Q. It is just that this is somewhat novel,  
29 that this regulatory agency will no longer control the  
30 actual dollars that Canadians are permitted to pay or







1  
2 that the carrier is permitted to earn for their  
3 transportation facilities.

4 THE CHAIRMAN: But would still be a  
5 policeman?

6 THE WITNESS: The regulatory agency would be  
7 a policeman; that is certainly true. This, as I was  
8 really saying yesterday, is my conception of what a  
9 regulatory agency should be -- not a hand-holder.

10 MR. SINCLAIR: You have not been here on a  
11 general revenue case.

12 MR. MAURO: Q. Finally, one more point, Dr.  
13 Roberts. Under the scheme you have proposed, as we  
14 interpret it, the railways would base their out-of-  
15 pocket costs on an unrealistic minimum weight; it would  
16 have a maximum normal weight, which would then be 178%  
17 of that?

18 A. Just for illustrative purposes, yes.

19 Q. The railways come in and say, here are the  
20 out-of-pocket costs based -- on my argument -- on an  
21 unrealistic minimum when the stated rate now is 178% of  
22 that?

23 A. Yes.

24 Q. But a shipper who is not able to attain  
25 that minimum weight would find his effective rate much  
26 different. For example, assuming that the normal  
27 commercial shipment of a commodity is 30,000 pounds,  
28 the out-of-pocket costs based on that weight is \$1 a  
29 hundred-weight, but the out-of-pocket costs based on a  
30 60,000 pound shipment is 80¢ a hundred-weight. Therefore,





1  
2 the maximum rate is 178% of 80¢ a hundred weight or,  
3 \$1.42 -- assuming my arithmetic is right?

4 A. Yes.

5 Q. So, the minimum charge per car is 60,000  
6 pounds at \$1.42 a hundred, or \$752.

7 A. Yes.

8 Q. The shipper who loads only 30,000 pounds  
9 would find his effective rate was \$2.82 a hundred pounds  
10 because he cannot meet the minimum weight that the  
11 railways have based their rate upon?

12 A. Yes.

13 Q. And yet, the theoretical maximum was \$1.78?

14 A. I think, again, you have to kind of  
15 generalize this. If the commercial minimum has any real  
16 economic validity, if the bulk of transactions are in  
17 these terms, it seems it would be appropriate to couch  
18 the rate ceiling in these terms.

19 Q. This is my point, though: are you not faced  
20 with the Board of Transport Commissioners or some  
21 regulatory agency coming in and policing it by setting  
22 minimums -- setting these regulations? In other words,  
23 I find -- and I am very sincerely discussing this with  
24 you -- that under your scheme unless we hedge it as  
25 closely as we have hedged our present system, the  
26 railways can make it ineffective by just determining  
27 how they want to base their out-of-pocket costs?

28 A. Well, as I said, I am rather drawn in,  
29 and I can see the basis in it. In a discussion on  
30 minimum rates I certainly would not have suggested the







1  
2 elimination of the minimum rate requirement, and I take  
3 it you are suggesting this would require an elaboration  
4 or an extension of the kinds of controls over minima  
5 which now exist, so that you can get out under above  
6 out-of-pocket costs and put a floor under the rates.

7 Q. Yes; we discussed my philosophy  
8 concerning the need for a more accurate story on  
9 minimum rates, but we are now into your scheme and I am  
10 suggesting under your scheme we are going to have to  
11 have additional controls to police how these out-of-  
12 pocket costs are being determined, and on what weight  
13 levels they are being determined?

14 A. I think this gets back to something I  
15 said the other day: it depends upon the position you  
16 are talking about. If you are talking about every  
17 single carload that is ever moved, that the rate is  
18 going to have a ceiling precisely related to the out-  
19 of-pocket cost of that particular carload, even  
20 measured on a long run basis, then you have got one  
21 kind of control, and I suggest a complex and completely  
22 unmanageable kind of control. To the extent you  
23 generalize it, then these kinds of problems you suggest  
24 become less and less important. It is a question of  
25 administration and how much detail. But even with the  
26 proper generalization, at least there is this  
27 advantage of shooting at the right target. I know of  
28 no case of people coming close to the mark by shooting at  
29 another target simply because it is easier to hit than  
30 the right target. If we have a target on this side of





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1  
2 the room and another one on this side of the room, and  
3 there are all sorts of barricades in front of this  
4 target so that it is extremely difficult to hit, I am  
5 an awful lot better off and more apt to hit it if I  
6 shoot at that target, and this, I think, under present  
7 maximum rate control is what we are doing -- shooting  
8 at the wrong target. In other words, we have no  
9 standards.

10 --- A short recess ---  
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2 THE CHAIRMAN: Order, please. Mr. McDonald?

3  
4 CROSS-EXAMINATION BY MR. McDONALD:

5 Q. Dr. Roberts, I have a few questions,  
6 just to clarify some points in your brief that I  
7 would like to deal with.

8 First, on page 3, paragraph 2, you state:

9 "Higher than average rates are unjustified  
10 if they exceed amounts dictated by the output  
11 and unit cost that would be associated with  
12 non-discriminatory rates."

13 How can you define the ceiling that would be dictated  
14 by the output and unit costs?

15 A. Well, by the "what if" process that I  
16 have talked about and described, which really involves  
17 anticipations of what if you had uniform prices and  
18 had no determination, what would be the level of out-  
19 put, and then in view of the cost characteristics of  
20 railroads, these railroads might establish unit costs.  
21 This involves, as I say, anticipations.

22 Q. Yes.

23 A. But the kinds of anticipations are the  
24 anticipations that business men have to make all the  
25 time in pricing decisions. We have to ask, whether  
26 it is steel, railroads, paper, what is going to happen  
27 to our market if we raise our price; if we lower our  
28 price, how many units will we be able to sell at those  
29 prices, and what would be the cost of those units?  
30 It is that kind of inquiry.







1  
2 Q. Well, then, it is all right at the end of  
3 the year, you know what your output has been and what  
4 your costs have been, and you find out what the unit  
5 costs are. But, when you are looking ahead, you have  
6 to estimate the output?

7 A. Right.

8 Q. On page 4, the latter part of the second  
9 paragraph:

10 "Since different services are not  
11 homogeneous but incur varying direct  
12 (or out-of-pocket) costs, discrimination  
13 is not eliminated by uniform charges per  
14 unit of output, but by a uniform relation-  
15 ship between prices and direct costs (or  
16 a uniform percentage 'mark-up')."

17 Do you mean to say that to remove discrimination the  
18 rates for all traffic should be at a uniform percentage  
19 mark-up over the direct cost of moving traffic?

20 A. I am saying that in terms of economic  
21 theory -- this is the business of discrimination --  
22 if you have a uniform relationship between the specific  
23 costs of providing output and the price charged for it  
24 for this ratio is not an equality for all kinds of out-  
25 put, then there is discrimination, yes.

26 Q. If it is not an equality for all kinds  
27 of output, then there is discrimination?

28 A. There is discrimination, right. We do  
29 not suggest, as in the case yesterday, we would eliminate  
30 discrimination by having the same rate per hundredweight





1  
2 for lampshades as for coal.

3 Q. Carrying the matter of this discrimina-  
4 tion to an extreme, suppose the railways said, we will  
5 carry all traffic at, say, two cents per ton mile,  
6 whatever it may be ---

7 A. Yes?

8 Q. Which you say is lower than the truck  
9 costs?

10 A. Yes.

11 Q. There would be no discrimination, but  
12 you would admit to me some traffic would not be able  
13 to move at two cents per ton mile?

14 A. Right, this is true. It also would  
15 mean there would be discrimination. If you have --  
16 yes, that is what I am saying here. If you charged all  
17 traffic two cents per ton mile for coal and lampshades,  
18 assuming any coal moves; this would be a discrimination  
19 price.

20 Q. That would be a discrimination price.  
21 Why?

22 A. Because the margin between the two cents  
23 per ton mile and the cost of producing a ton mile of  
24 coal loaded in cars at, say, 120,000 pounds, versus  
25 lampshades loaded to what -- I do not know -- perhaps  
26 ten -- would be quite different. The same price and  
27 different costs gives you discrimination the same way  
28 as if you have the same costs and different prices.

29 Q. Yes. Then, on page 5 in the last sen-  
30 tence you state:







1  
2 "All rates above 2.27 cents violate the  
3 basic rationale of this pricing system by  
4 assessing an unjustified burden of support  
5 since shippers paying more than this  
6 amount would be better off without dis-  
7 crimination."

8 If all rates above 2.27 cents were reduced to that  
9 figure, where would the railways recoup themselves  
10 for the loss of revenue?

11 A. This is a question I dealt with in some  
12 detail, but rather crudely, to be sure, in connection  
13 with anticipations about the United States situation.  
14 And I mentioned yesterday that net revenues are a  
15 function of several variables: price, volume, and  
16 in unit cost, and that there is more than one combina-  
17 tion of the two basic variables, price and volume, or  
18 all three of them, that will give a given amount of  
19 net revenue.

20 I think the point that perhaps has not been  
21 emphasized enough here is the relatively lower per-  
22 centage of fixed costs that obtains under present-day  
23 conditions than probably was true some years ago.

24 In other words, if all costs were constant  
25 and there was no variation in output, then the effect  
26 of unit costs and of revenues from a given reduction in  
27 traffic would be very sharp. If all costs were  
28 variable, on the other hand, there would be no  
29 real occasion for discrimination in the terms we are  
30 talking about here. As I mentioned yesterday, some





1  
2 back haul discrimination in connection with joint  
3 costs might be associated -- I think this is one part  
4 of the answer, Mr. McDonald -- that different combina-  
5 tions of output, costs, unit costs and price can also  
6 produce -- well, to go back to our example, in the  
7 first place we need to produce \$1 million of revenue;  
8 under the second case we do not need to; we need to  
9 produce \$680,000 of revenue because of the fact that  
10 some of the costs will disappear with the assumed or  
11 hypothetical "what if" reduction in traffic.

12 Q. Yes. Aren't you assuming -- oh, yes,  
13 you are dealing here first, under discrimination,  
14 and without discrimination?

15 A. Yes. The second part of my answer  
16 would be that if the \$680,000 from the \$1,000,000,  
17 let us say, in the first case, can be achieved only  
18 by assessing what can be identified, assuming it can  
19 be identified, what can be identified as excessive  
20 rates for some kinds of shippers, then there is no  
21 compelling reason why the \$1 million has to be realized.

22 The \$1 million could be reduced by, as has  
23 been suggested, sluffing off plant costs which contribute  
24 more to cost than to revenues, and sluffing off traffic  
25 costs, which contribute more to cost than to revenues.  
26 This would be one way to reduce it.

27 If we want to retain the \$1 million, if  
28 for some reason we want this size of rail plant, the  
29 question arises whether the people paying more than  
30 2.27 cents should bear the burden of it or if for







1  
2 some more social purpose, whether it should be paid by  
3 society as a whole. In the latter case, it is the  
4 ugly word "subsidy".

5 Q. And, over to page 9, what action would  
6 you contemplate the railway would take in a situation  
7 where in order to meet active competition they could  
8 obtain the traffic at 200 per cent out-of-pocket costs;  
9 under your scheme would they be required to reduce the  
10 rate to 178 per cent of out-of-pocket, in spite of  
11 the fact that they could obtain the traffic in com-  
12 petition at 200 per cent?

13 A. This is the logical implication of this  
14 proposition, that even though there is competition, the  
15 shippers could and would have lower rates by railroad  
16 without railroad discrimination. Aside from the  
17 competition -- even with the competition, this would  
18 still be true. If there were no discrimination on  
19 the railroads and uniform pricing prevailed, by defini-  
20 tion in our illustration, we are saying the rate would  
21 be 178 cents. They would be paying average costs and  
22 they would be paying 178 cents. ... The mere fact  
23 that truck costs are 6 cents or 10 cents or pack train  
24 is 20 cents, certainly would not influence the logic  
25 of the system of the ceilings.

26 Q. The next question is, if the requirement  
27 of your proposal is that the rates must be set at 178  
28 per cent of out of pocket, would the railway not be  
29 quoting rates lower than necessary to meet competition?

30 A. Well, this is true, certainly in economic







1  
2 terms, yet I do not think -- this is a legal phrase  
3 that is of very great significance in our country in  
4 terms of regulation, and certainly from the standpoint  
5 of management decisions, also, is of very great impor-  
6 tance. If you can get the traffic at \$2 -- get some  
7 given bundle of it from a private enterprise standpoint --  
8 charging 1.78 obviously is not good business.

9 Let us suppose that you could also  
10 get the traffic at \$3 per ton, or whatever the unit was,  
11 and make even more money. Why not charge \$3 a ton?

12 Now, you have introduced the competitive  
13 case and you are saying here it could not. But what  
14 about the case -- well, I am not supposed to be asking  
15 the questions.

16 Q. Mine is a competitive case; you can  
17 meet the traffic and get rates at 200 per cent above  
18 your out-of-pocket costs?

19 A. Yes.

20 Q. Now, assuming that we have

21 A. Well, assuming that we have, say, 100,000

22 assuming that our figures are something like that, or  
23 the logic of the rate ceiling that we are talking about,  
24 if the railroads did not discriminate the average unit  
25 cost and there were no discrimination, uniform pricing,  
26 average unit costs which everyone would pay would be  
27 \$1.78. And this, as I think we have said, or as a  
28 proposition I advanced as an assertion, perhaps, when  
29 we are permitting a public utility type enterprise or  
30 a business affecting public interest or a regulated





1  
2 industry to discriminate, it seems to me it is to  
3 serve some social purpose beyond those private management  
4 purposes. And the social purpose is to benefit every-  
5 body, and, as I have reiterated, everybody, including  
6 those paying higher rates. In other words, the people  
7 paying \$2, even though the truck cost is higher than  
8 that, are not benefitted by discrimination if they  
9 are paying \$2 instead of \$1.78. They are worse off.

10 Q. Your basis for that is not economics  
11 or private enterprise or anything like that, or common  
12 ordinary business judgment. You say it is for a  
13 social benefit that this should be a maximum?

14 A. What I am saying is that discrimination  
15 as a pricing institution in a regulated industry  
16 requires social rationale. We recognize this. You  
17 have rate ceilings; we have rate ceilings. We have  
18 said quite clearly in our law, and in yours, "the  
19 sky is not the limit".

20 We have said, this is the only purpose of  
21 rate ceilings. And I am sure the Canadian National  
22 and Canadian Pacific have been confronted with this.  
23 So you can charge higher rates and make more money;  
24 we are not going to let you do it.

25 This is an integral part of transport control.  
26 But what we are talking about here is where this level  
27 should be.

28 I am trying to say that the idea of saying to  
29 a private business management, you cannot charge this  
30 much, is not revolutionary; is not new with me. This







1  
2 is an integral part of our regulatory philosophy.

3 Q. Yes. Well, we have the class rates in  
4 Canada, which is the upper limit permissible.

5 COMMISSIONER GOBEIL: Dr. Roberts, do you  
6 suspect that there might be cases like the one mentioned  
7 by Mr. McDonald, where it is 200 per cent, will have  
8 to be reduced to 178 per cent, and that in such a case  
9 do you visualize that might be that the trucks are  
10 driven out of business for those certain commodities?

11 THE WITNESS: This may well be, yes. To  
12 answer your question, this may well happen.

13 COMMISSIONER GOBEIL: Yes, thank you.

14 MR. McDONALD: Q. Then, when you refer to  
15 out-of-pocket costs, in the first place I think you  
16 have touched on this -- do you mean average out-of-  
17 pocket costs or the out-of-pocket costs for a par-  
18 ticular commodity, varied in the way in which it is  
19 handled?  
20  
21  
22  
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1  
2 A. Since Dr. Williams got involved in this  
3 the other day I was hoping we could escape it but I will  
4 be happy to deal with it again. There is, as we all  
5 know, a great deal of ambiguity in the meanings of  
6 these costs. By out-of-pocket I would simply mean the  
7 average variable costs associated with a given block of  
8 traffic. For instance, if you are dealing in a pricing  
9 decision or a pricing situation where if you quote one  
10 rate or a specific rate you get 1,000 more units of  
11 traffic then I would say the out-of-pocket costs  
12 associated with those is the total cost, total  
13 additional cost that would be incurred by carrying the  
14 1,000 units. If you want to put it on a per unit basis,  
15 divide by 1,000.

16 Q. Do you use the term "out-of-pocket costs"  
17 as synonymous with variable cost?

18 A. It is a distinction I implied. Variable  
19 costs, I think, the way I would use it here, my  
20 definition would say that out-of-pocket costs is the  
21 average variable costs of a specific block of traffic.  
22 In the sense I would agree, yes, that I am talking  
23 about variable costs.

24 Q. Then, do you know anything about cost  
25 studies that were made by the two railroads in regard  
26 to the handling of grain to export positions?

27 A. No, sir, I do not.

28 Q. Well, for your information the cost  
29 study of the Canadian National handling grain in 1958  
30 showed the variable cost to be .776 per ton mile and





1  
2 fully distributed costs to be 1.07 cents per ton mile.  
3 Now, if you applied your suggested level of rates,  
4 namely 178% of out-of-pocket or variable costs, you  
5 would come up with a rate of 1.37 cents per ton mile.

6 A. Yes.

7 Q. I might just say that the Canadian  
8 National revenue that year was .49 cents per ton mile.

9 A. I have heard something about this.

10 Q. On page 16, referring to your table, it  
11 appears from the table that the degree of upward  
12 discrimination which you speak of there is more  
13 pronounced in Quebec and Ontario than in some of the  
14 other provinces. Then, at the bottom of page 17, some  
15 explanation is given of the provincial concentration  
16 particularly in Quebec and Ontario. It does not  
17 suggest that the upward discrimination you are speaking  
18 of is actually more pronounced in Alberta than elsewhere  
19 in Canada?

20 A. No, it does not.

21 Q. Then, dealing further on page 16, while  
22 we are here I might say I want to refer to pages 28 and  
23 29 also where you give appendix II Waybill Sample Traffic  
24 with car-mile revenue ratios for 200. I would like you  
25 to take a look at page 28 at copper ore and concentrates,  
26 Quebec to Quebec which gives a car-mile revenue of  
27 \$2.33?

28 A. Yes, I have it.

29 Q. Then, if you go over to page 29 again  
30 about ten lines from the top you have copper ingot and  
pig, Quebec to Quebec, \$2.15. Both those rates are in







1  
2 excess of 200?

3 A. Yes.

4 Q. Have you any particulars of any of the  
5 movements here?

6 A. No, this came directly from the waybill  
7 sample. I did not attempt to study them on any on-the-scene  
8 basis.

9 Q. You did not go into the question of the  
10 weight per car and that would be a factor which would  
11 have to be taken into consideration?

12 A. Yes.

13 Q. The weight per car?

14 A. The weight per car is one of the factors  
15 along with ---

16 Q. The number of units in the car goes along  
17 to determine the car-mile revenues but you did not refer  
18 to ---

19 A. I did not distinguish between whether or  
20 not the relatively high ratio was a function of a high  
21 price per ton mile or a mild price per ton mile and high  
22 loading or any combination of those things.

23 Q. So, to get the complete picture one would  
24 have to go into that to find out whether it was high  
25 loading, that is heavy weight, whether they were  
26 carrying 70 or 20 tons which would make a big difference,  
27 would it not?

28 A. I do not think so. If we can say that the  
29 movement of a car-mile is a basic cost incurring factor  
30 on the railway in a division of this capacity then the





1  
2 car will be loaded to a certain amount, a certain amount  
3 of hundred of pounds at a certain price. Then we have  
4 to have high car-mile revenues either from relatively  
5 high rate per ton mile, well, very high rate per ton  
6 mile and not so many tons were going it could be their  
7 relatively low price to a lot of weight units loaded  
8 in the car. In each case, however, the cost involved  
9 in handling the car-mile -- certainly if we take it  
10 between two points, a 200 mile shipment between the  
11 same "O" and the same "D" we have a car-mile revenue of,  
12 let us say, \$2.50 in one case and \$1.50 in the other.  
13 Now, the car-mile revenue on \$2.50 may arise because  
14 we have a rate per ton mile on 3¢ -- I am not producing  
15 exact figures -- a ton mile rate of 3¢ and relatively  
16 low loading, let us say 20,000 pounds. We could have  
17 the \$2.50 revenue per car-mile because we have a rate  
18 of 1¢ per ton mile but we load 120,000 pounds into it.  
19 The cost per ton mile is going to be lower in the case  
20 of the loading to 120,000 pounds than the loading to  
21 the 20,000 pounds. In other words, it is my belief --  
22 to answer your question directly -- it is my belief that  
23 the weight factor is taken into explicit account for  
24 present purposes through the fact that I have mentioned  
25 that the car-mile revenues are a combination of these  
26 two variables.

27 Q. Yes, dealing with these two items on  
28 pages 28 and 29, copper ore and concentrates and the  
29 copper ingot and pig, if you take the mileage on page  
30 28 of 181 miles and anybody who knows Quebec would know







1  
2 where they were coming from, from those mines at  
3 Chibougamu about 180 miles north of Noranda where the  
4 smelter is. Coming to the copper ore and pig, 572  
5 miles, that is from the smelter to the refinery. Now,  
6 it is a well known fact that this is one of our largest  
7 mining companies in Canada, a big smelter and refinery  
8 and yet you say its rates are suspect because they are  
9 over 200.

10 A. Well, I am simply saying that these, on  
11 the basis of this translation -- no, I will not say it  
12 that way -- on the basis of the measure we are  
13 employing car revenue ratios in the absence of better  
14 data, at least suggests that these rates are the ones  
15 that are relatively high in terms of freight costs.  
16 Even a low grade commodity rate, very, very heavy,  
17 can be low unit costs. The rates themselves could be  
18 very low. This is the thing we are interested in, the  
19 relationship of rates to the cost of movement.

20 Q. The point I want to make is this: those  
21 rates were negotiated with one of the largest mining  
22 companies in Canada, it is not some little farmer out  
23 in Saskatchewan or Alberta, these were the subject of  
24 negotiation and you mean to say, using your standard,  
25 we would have to go out and voluntarily reduce those  
26 rates.

27 A. No, I do not intend to imply this. I  
28 am simply saying these appear to be relatively high  
29 rates in view of cost but what should be done about it  
30 is something else.





1  
2 Q. But if you have applied your maximum  
3 formula they would have to be reduced?

4 A. Some of them might, yes.

5 Q. Even though they were negotiated between  
6 experienced traffic men for the industry and the  
7 railways?

8 A. Yes. May I elaborate a bit?

9 Q. Yes.

10 A. The question is answered simply yes, but  
11 I would like to add a word. It seems to me there are  
12 other things here, the mere willingness of the traffic  
13 manager to pay rates depends on a whole host of things,  
14 pricing arrangements with his customers, who is going  
15 to pay the freight. It may fall on to the consumers  
16 in a way and ultimately it will and yet it may be a  
17 matter of indifference to the traffic manager whether  
18 his rates are \$2.00 or \$3.00. I think I have detected  
19 circumstances in some situations where various high  
20 rates tend to serve the purpose of certain interests  
21 where they do not want rates reduced. High rates can  
22 have a very protective effect.

23 Q. I am suggesting to you that does not  
24 apply in this particular case. As you know, the price  
25 of copper is governed by the world market?

26 A. Yes, that is right.

27 Q. And has this scheme of yours been put  
28 into force in any public utility or railway on this  
29 continent?

30 A. So far as I know -- well, I am sure --





1  
2 so far as I know this is the first semi-refinement.

3 Q. The first time it has been advanced?

4 A. Yes, except if I may again -- I do not know  
5 what freedom I have to continue to answer your questions.

6 Q. That is all right, go ahead.

7 A. It is a scheme that has not been -- the  
8 principle, I am sure, is well recognized in terms of  
9 economic principles. What we are talking about here is  
10 the feasibility of applying it and how it may be  
11 applied.

12 Q. From a practical standpoint it has never  
13 been put into practice?

14 A. That is right.

15 MR. McDONALD: Thank you very much.

16  
17 CROSS-EXAMINATION BY MR. SINCLAIR:

18 Q. Dr. Roberts, as a man interested in  
19 transportation economics, you would agree I am sure  
20 and however interesting low transportation economics  
21 may be, the overriding consideration is that a freight  
22 rate structure must be practical?

23 A. Right.

24 Q. Pardon?

25 A. Yes, sir.

26 Q. Now, you say on page 2 you say:

27 "One requirement is that the low rates must  
28 not be 'gratuitously low'. Rates are most  
29 flagrantly faulty in this respect when they  
30 fail to cover the direct or out-of-pocket







costs associated with providing the service."

Then you go on later on that page at the bottom to say what the result of that may be?

A. Yes, sir.

Q. With the result that gratuitously low rates -- I will quote you now:

"... either impair earnings ..."

And as an alternative you say:

"... if they are recovered on other business, impose unjustifiable burdens on the affected shippers."

A. Yes.

Q. And by that fact it is not an alternative, it may be a combination?

A. I would agree.

Q. And if the traffic that does not cover variable costs is large, a very large proportion, this real possibility is that the degree will shift more to the carrier than it will to the other shippers?

A. It is possible, yes, sir.

Q. Now, upward discrimination you say is also unjustified:

"... if some rates are gratuitously low in a more subtle way by failing to provide as much overhead coverage as demand conditions permit."

You then go on to say:

"... the services similarly underpriced and by not contributing according to its economic





1  
2 capability 'cast a burden' on the traffic  
3 that is required to pay high rates."

4 And now, "economic capability" is a test and  
5 would you tell this Commission how you would determine  
6 the economic capability and measure of traffic to take  
7 a higher rate.

8 A. Well, if a higher rate would contribute  
9 to net revenues.

10 Q. That is the test?

11 A. Yes.

12 Q. You would agree, would you not that until  
13 a rate is put into effect and not until then can its  
14 results be known? That is the wording of Ripley and  
15 I suppose you recognize it?

16 A. Not until then can its results be known.  
17 It is possible, however, to anticipate what might  
18 happen and I think this is certainly more true now  
19 than in Ripley's time.

20 Q. Well, how you anticipate is by market  
21 analysis?

22 A. Right.

23 Q. And market analysis has been used  
24 extensively in the railroad industry, maybe not as  
25 well publicized but it has been used, very, very  
26 highly, very highly, by a company known as the Ford  
27 Motor Company. Correct?

28 A. Yes.

29 Q. And they have in the Ford Motor Company  
30 executive one of the most distinguished analysts and







1  
2 market economists in the United States, Dr. Yntema?  
3 You smile and I think you know where we are going.  
4 I wonder if you would tell the Commission about the  
5 market analysis made by the Ford Motor Company prior  
6 to the introduction of the Edsel and the carrying out  
7 and the result?

8 A. I believe I hardly need tell the  
9 Commission but I will be glad to put it on the record.  
10 Apparently, the studies were not well conducted, at  
11 least the results did not follow the anticipations.

12 Q. That does not necessarily follow. You  
13 say apparently the studies were not well conducted but  
14 the studies may have been exceedingly well conducted  
15 but did not properly measure factors that are  
16 immeasurable in demand.





1  
2 A. If we can accept the old adage that the  
3 proof of the pudding is in the eating, these were  
4 obviously poor market studies.

5 Q. But much as the economist might like it,  
6 there is still the fact that is immeasurable, and that  
7 is that people do not always act as economic stimulus  
8 or economic situations might expect them to act?

9 A. To be sure.

10 Q. And this is the problem of every market  
11 analyst?

12 A. Yes, and it means that more disciplines  
13 are required than economics: psychology and what makes  
14 people tick are among them.

15 Q. On page 3 -- and this is a point I  
16 want to put to you rather carefully, because you stated  
17 here that this was the central scheme of your pre-  
18 sentation?

19 A. Yes.

20 Q. And you say here, "It is apparent that  
21 low rates are justified only if and because they con-  
22 tribute more to the support of the system than would  
23 higher ones and thus diminish the financial burden  
24 on other traffic", and then, "Higher than average  
25 rates are unjustified if they exceed amounts dictated  
26 by the output and unit cost that would be associated  
27 with non-discriminatory rates." I suggest to you,  
28 Dr. Roberts, what you have stated here is incorrect  
29 because the basic reason in support of discrimination  
30 pricing is that the average of all rates -- and I





1  
2 emphasize "all rates" -- both high and low are less as  
3 a result of the discrimination; agree?

4 A. This is a result of discrimination as is  
5 made very explicit here, I think, that it enhances  
6 output and reduces the average unit cost, yes, sir.

7 Q. Now, your statement, on the other hand,  
8 would only be right, I suggest to you, because you are  
9 working on one side of the equation only, if I may put  
10 it that way; it would only be right, if I can put this  
11 in economic terms, and if you will pardon me because I  
12 may not do it quite well enough, but if I am wrong you  
13 can put the language right: your proposition, in economic  
14 terms, would only be right and true when you could de-  
15 termine that the gain of the party who gains cannot be  
16 compared with the loss of the party who loses? Would  
17 you like to think about that for a moment?

18 A. The gain . . .

19 Q. The gain of the party who gains cannot  
20 be compared with the loss of the party that loses?

21 A. The language that has me stumped for the  
22 moment is "cannot be compared with" -- is greater than  
23 or less than?

24 Q. No; "not be compared with". I am  
25 saying to you that you are looking at one side of the  
26 equation only because your proposition is based on this  
27 -- which I will put to you again: that the gain of the  
28 party who gains -- and let me interpret that to be that  
29 the shippers of the low-rated traffic under your  
30 proposition -- cannot be compared with the loss of the







1  
2 party who loses -- and I interpret the second one to  
3 be the shippers of the higher-rated traffic?

4 A. Yes.

5 Q. And you say that is socially unjustifiable  
6 in economics, and I suggest to you that you can't say  
7 that in economics, and I ask you if you agree with it?

8 A. If I -- is the question, do I agree with  
9 the italicised statement?

10 Q. Do you agree with the fact that your state-  
11 ment on page 3 is conditioned upon the economic theory  
12 that the gain of the party who gains cannot be compared  
13 with the loss of the party who loses -- and you don't  
14 agree with that, do you?

15 A. No. Frankly, I still don't understand  
16 it. The phrase "cannot be compared with" -- this has  
17 no meaning to me.

18 Q. Let me try to give you the analogy that  
19 I like to use in this field, and it is a pretty simple  
20 one: you will pardon me for not stating it as well as  
21 it can perhaps be stated. An economist cannot be  
22 certain -- and I am choosing my words as carefully as  
23 I can -- an economist cannot be certain that the impact  
24 of higher income tax rates -- and I am talking personal  
25 income tax -- that higher personal income tax rates have  
26 less minimum effects ---

27 ---Question repeated.

28  
29 Q. My point is this, that an economist cannot  
30 be certain that high income tax rates on high incomes





1  
2 have lesser social disabilities than lower, relatively,  
3 rates on the high incomes and higher income tax rates  
4 on the low incomes?

5 A. He can't be certain -- well, I think he  
6 could be certain that the tax yield will be different.  
7 It is a question of comparing ---

8 Q. Can't be certain about the social signi-  
9 fiance that flows?

10 A. I would say that the measurements, tools  
11 and even some of the conceptual things are not  
12 sufficiently clear that he can be certain, if we want  
13 to interpret this at all literally. I think this is  
14 right.

15 Q. And yet, the basis of your proposition  
16 is the employment of uniform pricing, or something  
17 based on uniform pricing as to make that analysis  
18 definitively; correct?

19 A. I would not say so.

20 Q. Well, definitively within a range?

21 A. Within a range. As I have said, in  
22 pricing services everybody has to do it. If you are  
23 going to look ahead in any business decision -- "How  
24 much should we invest in our plant?" -- you have got  
25 to make these determinations. All that is involved  
26 here is making the same kinds of determinations on a  
27 larger scale than for one company, but two companies,  
28 which is not a substantially larger scale, actually.

29 Q. But you see my point -- and I want to  
30 make sure you are understanding me -- is that under your







1  
2 proposal -- and I recognize you are trying to put it  
3 to this Commission illustratively?

4 A. Yes, indeed.

5 Q. I understand that; that your proposal  
6 necessarily overlooks the basic fact of railway dif-  
7 ferential pricing in that its justification is a lower-  
8 ing of all rates rather than tied to a relationship  
9 between high and low?

10 A. I don't believe this is true because I  
11 am not attacking price discrimination. In fact, I  
12 conclude that the discriminatory system is better  
13 because it does produce lower average unit costs.

14 Q. Will you make that abundantly clear  
15 because I had a little difficulty with your paper here  
16 until I got the concept of it, and as I understand that  
17 concept, and so that you and I can be at one, what  
18 you do is, in the first part of the paper, discuss the  
19 theory of uniform pricing. In the second part you  
20 say you are not in favour of that; you are not in  
21 favour of uniform pricing, but you are in favour of  
22 differential pricing in transportation services  
23 within limits?

24 A. Right.

25 Q. And then you go back to use as the key  
26 of the limit the uniform pricing?

27 A. Not the uniform pricing.

28 Q. The uniform pricing number adjusted?

29 A. That is right; the level of average  
30 costs that would be achieved with uniform pricing,





1  
2 right.

3 Q. And the effect of that, I suggest to  
4 you, economically, is to look at only the one side of  
5 the discrimination equation, and that is that it  
6 necessarily looks away from discrimination justifica-  
7 tion on the reduction of all rates, both high and low,  
8 and looks for its justification on the reduction of  
9 high rates?

10 A. I can't accept this, really.

11 Q. I can understand why you can't accept  
12 it, but I am suggesting to you you have made it clear  
13 to my friends on a number of occasions that you are not  
14 suggesting low rates go up; you are going to leave that  
15 to the railways?

16 A. Yes.

17 Q. But you are certainly suggesting that  
18 high rates come down?

19 A. If you mean looking at it from one  
20 side, then quite clearly the answer is "Yes".

21 Q. That is right. Now, Dr. Roberts, you  
22 have made clear that the elimination of discrimination  
23 in railway pricing would be impossible or relatively  
24 impossible because this would require cost-oriented  
25 rates for every movement of every commodity, because  
26 there are variations, and so you acknowledge that it  
27 is both wise and necessary to have discrimination in  
28 the railway price structure?

29 A. Right.

30 Q. I suggest to you, Dr. Roberts, that in





1  
2 making your calculations, for instance, on page 5,  
3 in the illustration, that you have fallen into error  
4 by equating variable (out-of-pocket costs) with avoidable  
5 costs; in other words, you have equated the cost  
6 characteristics on the additional increments of traffic  
7 with the cost characteristics of a reduction in the  
8 units of traffic -- you have equated them?

9 A. As a conceptual proposition I think there  
10 is no distinction, depending upon which direction you  
11 are looking -- towards expansions or contractions. In  
12 other words, what you are saying, if you can contemplate  
13 or visualize a cost curve, is that this curve has a  
14 certain function. If you move out on it and have more  
15 output, costs will do this. If you move back on it,  
16 you have less output and costs will do that. It has  
17 the same function. I think what is at issue here is  
18 not the conception, but whether these functions are  
19 reversible.

20 Q. That is right; that is all I am putting  
21 to you.

22 A. But if you go back ---

23 Q. I suggest to you you can't go back.

24 A. I think this may well be true. I think  
25 it has little effect on the validity of the proposition  
26 or of the illustration. In other words, the point I  
27 am making would be the same whether we put other  
28 numbers on the variable thing or not.

29 Q. I suggest not, for the simple reason that  
30 you have taken as your basis of statistical analysis to







1  
2 arrive at the maximum rate cost characteristics flowing  
3 only from added increments of traffic, and you have  
4 tried to relate that in your calculations and in your  
5 conception back to what would cost behaviourism be in  
6 down-turns of traffic to as much as 50 per cent  
7 elimination?

8 A. Yes, this is true so far as precise  
9 computation is concerned. I would suggest, however,  
10 that the point is simply to show -- and I am sure  
11 this would find almost unanimous agreement -- that if  
12 railway traffic declined by 50 per cent permanently  
13 the chances are the unit costs would be higher. That  
14 is really all this shows.

15  
16 ---Luncheon adjournment.  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30





1  
2 ---On resuming at 2.00 p.m.

3 THE CHAIRMAN: Order, please.

4 MR. SINCLAIR: Q. Dr. Roberts, if under  
5 the application of your proposal the calculation as  
6 to the loss of traffic that might pertain was greater  
7 than was anticipated, you would agree that this would  
8 have a material effect on the unit cost factor;  
9 correct?

10 A. Yes, sir.

11 Q. And it is quite possible that you could  
12 by distribution of traffic mix and by this calculation  
13 in truth really have a resulting rate structure that  
14 would have a higher average cost than the one that  
15 you were displacing?

16 A. Oh, I think -- well, again, we must be  
17 careful to distinguish between the "what if" analysis,  
18 as we have called it, and actually moving to uniform  
19 rates. Is this involved in your question?

20 Q. No. I tried to put my question to you  
21 on this basis, that it makes no difference, I suggest,  
22 really, as to whether you go to a uniform pricing policy  
23 or a uniform pricing policy which I will, for want of  
24 better terms, say liberalize to prevent range dis-  
25 crimination?

26 A. Yes.

27 Q. And that if your calculations are wrong  
28 or if you misjudge the effects, you can have a resulting  
29 rate structure that the impact of which is greater than  
30







1  
2 that now existing?

3 A. I believe that is true. May I give  
4 my interpretation of that question. If you are  
5 making these anticipations, and just to use the example  
6 that I played around with, to contemplate uniform  
7 prices would occasion a 50 per cent reduction in traffic  
8 that would be associated with a given rise in unit  
9 costs. If actually the impact of uniform prices on  
10 a hypothetical uniform pricing system would result in  
11 a 60 per cent reduction in traffic, then the actual  
12 effect of hypothetical uniform pricing system would  
13 be understated. Unit costs would be higher with the  
14 60 per cent reduction if it actually would have been  
15 realized than with the 50 per cent.

16 Q. Can I go further, Dr. Roberts. It is  
17 possible with the overall burden -- using burden in  
18 the economic sense of cost -- the overall cost could  
19 result in total to being greater than the existing  
20 rate structure; you agree?

21 A. Yes.

22 Well, wait a minute. I would like to  
23 qualify this. If by overall costs you mean total  
24 costs, I would believe not. Total cost for 60 per  
25 cent of present output would be less than for 100 per  
26 cent of present output. The unit cost would be  
27 higher.

28 Q. I suggest to you no. I suggest to  
29 you that total cost would be greater for the following  
30 reasons: first, that as the railways had an opportunity





1  
2 under your proposal of range discrimination, or without  
3 that range discrimination that is implicit in uniform  
4 pricing, traffic which the railways shed and which  
5 was below average costs, but above variable costs, if  
6 it moves by another transport media of higher cost  
7 characteristics than the railway, would add a plus  
8 factor to the total transportation cost which could  
9 be greater than exists in the total cost burden of  
10 the transportation now moving under the existing rate  
11 structure?

12 A. This is true, but I am not contemplating  
13 the shedding of this traffic.

14 Q. You may not be contemplating it, but the  
15 economic necessities of operating a railway profitably,  
16 I suggest to you, may force railways to shed traffic  
17 for the reason that by shedding it they are able to  
18 evolve and force a higher ceiling -- correct -- under  
19 your proposal?

20 A. Well, if they are shedding traffic that  
21 they are not carrying profitably, you mean?

22 Q. No, that they are carrying profitably  
23 in the sense that the rate is compensatory, that it is  
24 making a contribution over its variable, but is sub-  
25 stantially below average?

26 A. I see no reason why that traffic should  
27 be shed, Mr. Sinclair.

28 Q. You do not see the reason. I suggest  
29 to you that here is the reason: if the railway is  
30 faced with this proposal as a directive or as a





1  
2 legislative fiat, they would, if you assume that they  
3 know how to calculate these things -- and I think you  
4 had better assume that as far as some of them around  
5 here are concerned in this country; at least, the  
6 Canadian National and the Canadian Pacific, let us  
7 assume they do -- that they would immediately start  
8 taking a look at this to make certain as nearly as  
9 they could do that they would arrange their affairs  
10 as to enable them to get the maximum out of it. And I  
11 suggest to you the way they would get the maximum out  
12 of it is to immediately dry up traffic on  
13 the low ranges; to dry up traffic on the low ranges  
14 to move their average unit costs upwards.

15 A. Well, it seems that this would be a  
16 very short-sighted policy, to lose actual revenues, net  
17 revenues, on this low-rated traffic just to drive it  
18 away gratuitously so the line would be drawn at  
19 rather than 178, say, at 200.

20 Q. Their whole purpose, where they would  
21 maximize their net, would be to shrink their plant so  
22 they could move traffic at total cost, or something  
23 in addition thereto, because this would maximize their  
24 net under your plan?

25 A. Well, I think we may have to start over  
26 again, Mr. Sinclair.

27 Q. I will come at it in another way ---

28 A. Yes, please do.

29 Q. --- as I come back into other aspects of  
30 it.







1  
2 Let me try to take you in this way, so that  
3 I can understand where the difference with you and me  
4 may be.

5 A. Yes. I think we are having a communi-  
6 cation difficulty.

7 Q. Very well. Let me put it to you this  
8 way. You use a key number of 139, which you took from  
9 the ICC burden study?

10 A. Yes.

11 Q. This key number is 139. Maybe the best  
12 way to do this is to go to page 7 of your brief and work  
13 from these figures?

14 A. Yes.

15 Q. I will see if I can get the same basis.  
16 Just, first, so that I can understand that I am not  
17 making mistakes in arithmetic with you, we will take the  
18 first one, the ten per cent reduction, and see if you  
19 agree this is the way we work the arithmetic.

20 I take 10 over 90 as per cent to arrive at  
21 the second column. That is, 10 per cent reduction;  
22 so, I take 10 over 90 as a per cent, which gives me 11.  
23 Correct?

24 A. I did not derive it that way. By some  
25 arithmetic action, it might come out that way.

26 Q. I suggest that you try it and take the  
27 various ones down that column and see if it does not  
28 work out?

29 A. In 50 over 50, that is 100. At least  
30 in those two it works.





1  
2 Q. I suggest to you I have done it down the  
3 column and they all work.

4 A. This is what it is -- all right.

5 Q. All right. Then, I multiply that second  
6 column by 28 to get the third column; correct? --  
7 28, being the per cent variable on total?

8 A. Yes.

9 Q. That is right?

10 A. Well, wait a minute, now.

11 Q. You did not do it this way, obviously?

12 A. No, I did not do it this way, no.

13 Q. Well, I am going to show you how I did it.

14 A. We are talking about the third column,  
15 and the question is, how does this mean a 3 per cent  
16 increase in total costs; is that it?

17 Q. Yes. I took 11 per cent of 28, makes 3?

18 A. Maybe that works, again, yes. All right.

19 Q. So, I have 3. I took 103 per cent of  
20 139.

21 A. Right.

22 Q. To get 143.

23 A. We did that the same way, I may say.

24 Q. We did. All right. At least we finish  
25 with the same number?

26 A. Yes.

27 Q. That does not necessarily mean that  
28 because you finish with the same number the procedures  
29 you follow are necessarily the same?

30 A. No.







1  
2 Q. Or that they are necessarily both right;  
3 does it?

4 A. No, but if we get the same results, I  
5 think there would be a presumption it is true; there are  
6 alternative ways of applying arithmetic, perhaps.

7 Q. Yes, we have seen some of them in this  
8 room on many occasions.

9 Then, Dr. Roberts, you finish with two numbers;  
10 28, being the variable proportion; being the residual  
11 from the variable proportion, or what you call fixed  
12 and what I call constant cost?

13 A. Yes, although that is not derived from  
14 this. This datum that is given comes from another  
15 source, yes.

16 Q. I agree. And 139 is the other key?

17 A. Yes.

18 Q. And that comes from the burden study?

19 A. Right.

20 Q. And you say about that 139 that it  
21 translates rate level increase into the corresponding  
22 uniform ratio of rates to out-of-pocket costs that  
23 would be required for full cost coverage?

24 A. Right.

25 Q. Now, Dr. Roberts, I suggest to you that  
26 you have fallen into error by assuming that the burden  
27 studies of the ICC were in any way connected with the  
28 determination of full cost coverage; they were merely, I  
29 suggest to you, determining the spread of earnings in  
30 one crucial factor over the commodities moved, and they were





1  
2 not determining cost of transportation in any way.

3 You agree?

4 A. I do not, Mr. Sinclair.

5 Q. Well, then, let me test it in one way.

6 In the burden studies, what factor was used in invest-  
7 ment costs? Percentagewise?

8 A. Well, four per cent return on investment?  
9 Is this the question?

10 Q. Yes, in the burden study.

11 A. Well, in determining costs.

12 Q. Well, that has been stated by the ICC  
13 themselves, and is used in the burden study as not a  
14 determination of cost at all, because that figure has  
15 been in existence without variation since the green  
16 book was first put out by Dr. Edwards; correct?

17 A. This presumably represents over some  
18 relatively recent years the long-run return on rail  
19 investment in the United States?

20 Q. Correct, correct. It is a measure of  
21 the actual earnings of the system, rather than the cost  
22 of investment to the system. This is the point I am  
23 making with you: it measures the return to the system  
24 rather than the cost of investment for the system.

25 You agree with that?

26 A. Well, the cost of investment, the cost  
27 of capital to the railroads for what they have in their  
28 plants seems to me can only be measured by the return  
29 it has yielded. You could not say it is 7 per cent,  
30 I believe.





1  
2 Q. Dr. Roberts, you are equating earnings  
3 and cost. You have done that throughout here, correct,  
4 in respect to this coverage? You answer here that  
5 it approximates the overall long-term earning or  
6 return, and in your answer to my friend Mr. Cumming  
7 yesterday and I suggest to you again just now, that in  
8 your analysis you equate earnings equal cost neces-  
9 sarily?

10 A. I am not sure I want to fully agree with  
11 you. I perhaps will, in a qualified way.

12 What we are dealing with here; what I am  
13 trying to say is that we observed in 1959 a given  
14 percentage of revenues -- total revenues -- to out-  
15 of-pocket costs.

16 Now, the revenue above direct cost is some  
17 kind of a profit margin -- perhaps not many of us  
18 would agree what to call it -- but there are certain  
19 outlays made directly to manufacture this transportation  
20 service. You pay this and you have 39 per cent left  
21 over beyond that.

22 All that we are trying to do in this total  
23 is to say that given a level of traffic what would the  
24 average level of rate have to be relative to the out-  
25 of-pocket cost that would be incurred to come out  
26 with the same dollar arrangement so that the railways  
27 would have as much money left over after they paid the  
28 direct out-of-pocket cost as they had in 1957.

29 Q. This is done on an average of how many  
30 railroads in the United States?







1  
2 A. It is done for the whole system.

3 Q. And it includes some railways in 1958  
4 in the United States that were not even making fixed  
5 charges; correct?

6 A. Certainly.

7 Q. And yet you are saying -- in spite of  
8 that you are saying that when you look at cost of  
9 transportation, it is the cost of providing transpor-  
10 tation; not the cost to the shipper of transportation,  
11 but the cost of providing the transportation. What  
12 you have been looking at is the cost to the shipper  
13 of buying transportation. I say to you, Dr. Roberts,  
14 when you come to this analysis you shift; you neces-  
15 sarily shift to the cost of providing transportation,  
16 which is a very different thing. Do you agree?

17 A. I am not -- I am sorry, sir, I do not.  
18 I am not in this last column, which I think is the  
19 critical column here, saying anything about the cost of  
20 transportation, except in this way, that if you con-  
21 sider what the railroads actually got over and above  
22 the out-of-pocket cost, this is what they used to  
23 reward capital, to reward bondholders and those who  
24 have supplied capital in any other way -- the stock-  
25 holders. And that in this case the cost of capital  
26 to them is this amount; this is what they have available  
27 to dispose of for these purposes.

28 Q. That is -- I am sorry, I just wanted to  
29 make sure of what you said -- that is the cost of capital  
30 to them? To whom?





1  
2           A.    To the railroads.    The point I really  
3 want to make, Mr. Sinclair, is that I do not believe  
4 when we are dealing with this 139 we necessarily have  
5 to get involved in the cost of railway service in the  
6 sense in which we are dealing with it here.    We are  
7 simply dealing with this realized margin; whether you  
8 call this 139 a total picture of cost, or what you call  
9 it, there is a margin of 39 per cent over and above  
10 the direct out-of-pocket marginal costs of supplying  
11 transportation service we want to maintain.

12           What I am suggesting in subsequent columns  
13 is that given portions in the level of output and the  
14 associated increase in cost that would result, that  
15 at a given rate level -- we talk about 178 average rate  
16 level -- the railways would be in the same financial  
17 position under those circumstances as they are if we  
18 put zeros in across the first line and 139 in the last  
19 column.

20           Q.    I suggest to you that that reasoning  
21 is not sound because the reason why you are making the  
22 calculations that you are making -- the reason for  
23 determining the key of uniform pricing and fixing the  
24 range is to make certain that the relationship of rates  
25 to cost; that is, the cost of providing the transporta-  
26 tion; is not unduly distorted, or, to use, being  
27 economic, what do you say ---

28           A.    Excessive.

29           Q.    All right, excessive -- that is the  
30 reason you were making all these calculations, is







1  
2 cost determination?

3 A. Right.

4 Q. That means cost determination of pro-  
5 vision of transportation, not cost determination as  
6 paid for transportation, I suggest?  
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1  
2 A. Well, this may be. I am simply saying  
3 that with a 50% decline in traffic, for instance, and  
4 obviously we are dealing with generalized patterns of  
5 cost behaviour, the chances are on the basis of the  
6 records on the Commission's analysis, that if the  
7 output is reduced by 50% the unit cost will increase  
8 by 28%.

9 Q. The reason I am pressing on this, Dr.  
10 Roberts, is this: we have agreed -- if we have not I  
11 will ask you to agree with me now -- we have agreed  
12 that it is essential in pricing realistically rail  
13 transportation that rates do not impose or are put into  
14 effect that pay less than the variable costs and  
15 something in addition?

16 A. Yes, sir.

17 Q. Now, you fix a maximum at a calculation  
18 that has relationship to cost and has relationship to  
19 variable cost factors of constancy of the variable  
20 level. Those are the two keys I was talking about, if  
21 you do not properly equate cost of provision of  
22 transportation the result of the application of your  
23 plan can mean that the maximum rate will be less than  
24 the variable costs of the specific movement. That is  
25 possible, I suggest to you. The maximum rate will be  
26 less than the variable costs of the specific movement.  
27 Under your plan you would agree this is possible?

28 A. I cannot. I do not see how 178% of any  
29 number can be less than 100%.

30 Q. Let me give you an example. You have





1  
2 assumed that a rate is unduly high under your social  
3 justification test, that is more than 200% of variable.

4 A. Yes.

5 Q. And I think yesterday you agreed this could  
6 be 250%?

7 A. Yes.

8 Q. All right, take the 250%, the highest you  
9 suggest. You suggested we might have an excess of 200%,  
10 we might have the upper limit of the pricing range 250%  
11 of variable.

12 A. Yes.

13 Q. And the absolute standard of minimum would  
14 be the variable cost. Now, in the Canadian freight rate  
15 classification we have a designation and a class rate on  
16 scientific instruments which I think is two-and-a-half  
17 times first. Now, two-and-a-half times column 100, I  
18 suggest to you, is more than 250% of variable costs. I  
19 would suggest to you that the average variable cost  
20 does not reflect the cost characteristics on scientific  
21 instruments by carload. Those circumstances that I have  
22 given to you could quite easily result in commodities  
23 moving at the maximum being below these variable cost  
24 of providing that service.

25 A. Well, must we not know what the  
26 relationship is. How do you describe these rates?

27 Q. Two and a half times first.

28 A. Oh, a scale of two-and-a half times first.

29 Q. Yes.

30 A. I do not see what that has to do with two-  
and-a-half times variable cost.







1  
2 Q. You see, the reason it has something to  
3 do with is that your maximum rate scale is fixed on an  
4 average variable cost and you made this clear this  
5 morning to my friend that you were talking about system  
6 average variable cost as the basic factor to which the  
7 multiplication would apply. Is this not right?

8 A. Yes. In other words, to get -- viewing the  
9 system as a whole what would be the effect on output in  
10 unit cost?

11 Q. Yes, so when you come to a commodity such  
12 as I have given to you on your pricing maxima it could  
13 well mean that the maximum rate perscribed by legislative  
14 fiat abridged the principle of not having a rate below  
15 its variable cost.

16 A. I am sorry, I do not want to appear dense  
17 but I still cannot get around this roadblock that makes  
18 me believe that if something is 178% of its variable  
19 cost then it cannot possibly be less than its variable  
20 cost.

21 Q. Do you mind? The reason is because you  
22 translate "average" to "its". I am pointing out that  
23 average is not its, average is average. Therefore, by  
24 taking an average number under your scheme mathematically  
25 if you take the probabilities you are going to arrive  
26 at some rates at the maximum is below the variable  
27 cost. It is an academic position and an economic  
28 position I am trying to put to you.

29 A. I am sorry, it is one that I cannot  
30 either see or subscribe to.





1  
2 Q. Very well, so you would not -- if two  
3 and a half times first over column 100 bothers you I  
4 will give you one that makes it a little easier. Take  
5 hampers and baskets which is three times first in our  
6 classification -- 300% first class rates operative in  
7 the movement of a commodity. Now, this class rate  
8 scale I am talking about in column 100 is the high  
9 level cost. Basically in the first three classes it was  
10 meant to move below the traffic so he will claim  
11 potential traffic in carloads within the first three  
12 classes as L.C.L. My proposition to you is that I am  
13 saying to you that your scheme -- I do not mean that  
14 offensively, your plan, your proposal, the proposal in  
15 the operation of rates, for instance, in scientific  
16 instruments and on baskets and hampers as examples,  
17 using the average variable costs as the operative  
18 key, will result in the maximum rate based on averages  
19 being lower than the variable cost of specific movements.

20 A. I am quite sure I understand the point  
21 you are making but I think there is this distinction  
22 that may be getting lost: the broad average or the  
23 broad system wide data or whatever you want to call  
24 it, are employed in determining the percentage, to be  
25 sure, but once you have got the percentage then I can  
26 only repeat it is impossible for me to see how any rate  
27 that is 250% of its out-of-pocket costs or variable  
28 costs --

29 Q. Not of "its", of the average.

30 A. No, this may be the misunderstanding.







1  
2 In other words, we are saying I take this shipper of  
3 --

4 Q. Scientific instruments or hampers?

5 A. Scientific instruments and the rates are  
6 300% of out-of-pocket costs --

7 Q. Column 100.

8 A. These rates are 300% of out-of-pocket  
9 costs, may we assume this for the moment.

10 Q. You mean the existing rate level?

11 A. Yes, the existing rates on these items  
12 are 300% --

13 Q. We cannot assume that.

14 A. Well, let us take some commodity where  
15 the rate is 300% -- let us take commodity "X".

16 Q. We will take a commodity where the ratio  
17 to its variable costs exceeds the average number that  
18 you are using at 250%. All right, on that hypothesis,  
19 what?

20 A. We will take a hypothetical commodity  
21 "X" and its ratio of its rate to out-of-pocket costs  
22 is 300%. We have determined that the permissible  
23 maximum is, let us say, 250%. In other words, the  
24 maximum reasonable rate for this commodity would  
25 be 250% of out-of-pocket costs. Now, if we are going  
26 to solve your point, perhaps you could add on to that  
27 what it would take to make the variable costs on this  
28 commodity exceed a rate which is 250% of its  
29 theoretical costs.

30 Q. Let me put the hypothesis to you this  
way and see if it clears it. Assume with me that





1  
2 commodity "X" variable cost exceeds 250% of average  
3 variable costs -- commodity "X" variable cost exceeds  
4 250% of average variable cost?

5 A. Yes.

6 Q. I suggest to you in that circumstance  
7 the maximum rate under your proposal or plan will  
8 result in a non-compensatory movement of a commodity.

9 A. No sir, we would add another 250% to  
10 that. All you have described is the relationship  
11 between the variable costs or out-of-pocket costs of  
12 this traffic versus some overall average. We are not  
13 interested in the overall average. For this  
14 particular purpose we are saying so far as this  
15 committee is concerned that this variable cost which  
16 is 250% of the system average, we add a margin of  
17 250% over this.

18 Q. Oh well, I am sorry. I have never  
19 understood your scheme until now, or your plan. What  
20 you are saying is, "for the purpose of illustration I  
21 have used averages but in point of fact I am not going  
22 to prevent the railways from making or I am expecting  
23 them to make individual cost analysis per movement."

24 A. No, I do not think I am saying that. I  
25 am saying that we are using averages to determine  
26 a dividing line, to draw a line beyond which -- to get  
27 some standards for maximum rates. When it comes to  
28 specific cases of whether or not a rate is excessive  
29 than its own peculiar characteristics are related,  
30 its revenues, its out-of-pocket costs.





1  
2 Q. But then, Dr. Roberts, if what  
3 you are saying is that the maximum which you establish  
4 on averages does not apply to individual movements,  
5 it must necessarily follow, I suggest to you, that  
6 you cannot work with averages under the hypothesis I  
7 gave you and you met that by saying, "Oh, in that case  
8 of commodity "X" the variable costs exceeds 250% of  
9 variable cost so we would add another 250% to it".  
10 Now, I suggest to you if that is the way you are going  
11 to apply it the only way the maximum rate can be fixed  
12 is by treating the cost characteristics on an  
13 individual movement with a percentage markup.

14 A. Exactly.

15 Q. And that percentage markup cannot be  
16 determined equitably by averages?

17 A. Well, it seems to me that is the only  
18 way it can be.

19 Q. All right. I will then deal with why  
20 I put to you why it cannot equitably be dealt with  
21 by averages. You suggested, for instance, on page --  
22 Mr. Chairman, I am sorry this is taking a little while  
23 but --

24 THE CHAIRMAN: It is helpful.

25 MR. FRAWLEY: C'est la guerre and I do mean  
26 guerre.

27 MR. SINCLAIR: Q. Would you look at page 20  
28 with me?

29 A. Yes, sir.

30 Q. Here is where you have decided to work







1  
2 on these car revenue cost analyses rather than using  
3 the out-of-pocket costs for the reasons that you  
4 explained?

5 A. Yes.

6 MR. FRAWLEY: For obvious and well stated  
7 reasons.

8 MR. SINCLAIR: And for reasons I would  
9 suggest to you are absolutely necessary in this  
10 country but not having made them available. That is  
11 not something we will deal with, that is something for  
12 the Commission.

13 MR. FRAWLEY: That is right. I thought that  
14 particular moment we have now arrived at would be  
15 arrived at and I would place now on the record that  
16 any criticism that my friend has, they may be valid, are  
17 certainly not chargeable against us. We did the best  
18 we could with the tools that we had. I could have  
19 said to Mr. Roberts, "Well, close up **your** books and  
20 abandon the idea and prepare no submission at all".  
21 Would that have been any better? I do not know as it  
22 would be any better but the fact is we went ahead and  
23 did the best we could without these very important  
24 burden study costs which we would like to have had  
25 but we were denied them.

26 THE CHAIRMAN: By the Commission.

27 MR. FRAWLEY: Denied by the railways and  
28 supported in that denial by the Commission.

29 MR. SINCLAIR: Q. And now, on page 20 you  
30 say:





1  
2 "The full extent of the differentiation  
3 is undoubtedly blurred by the aggregated  
4 data and comparison is difficult because of  
5 the complication of differences in haul  
6 lengths. But as one case, in 1958, car-mile  
7 revenues on non-competitive east to east  
8 traffic exceeded by 21% the yield on  
9 competitive volume, although average hauls  
10 were comparable."

11 A. Yes.

12 Q. I have checked it out and the average  
13 hauls are 168 and 177, I agree, so we are under no  
14 disability on that at all. You had available to you  
15 from that board's waybill analysis the calculated  
16 weights. Did you calculate weight?

17 A. This is the same point that Mr.  
18 McDonald and I talked about this morning.

19 Q. If you do not mind I am going to  
20 tighten it right down for another reason.

21 A. No sir, I did not.

22 Q. Well, I suggest that if you did it and  
23 you can do it from the board's waybill analysis --

24 A. Yes, I know.

25 Q. What Mr. McDonald put to you is a little  
26 more difficult than this simple thing I am talking  
27 about. I am talking about cars and tons and miles  
28 right off the data that is available and I do not have  
29 to do any reasoning, just a little bit of arithmetic.  
30 I think you will find that if you do this that non-







1  
2 competitive traffic and an average revenue per ton  
3 mile of 2.14 as compared with 2.35 on competitive  
4 traffic which you say is 21%.

5 A. In other words, the rate per ton mile  
6 was higher for the non-competitive -- the rate per  
7 ton mile was higher for the competitive traffic?

8 Q. That is right, 2.35 for competitive as  
9 against 2.14 for non-competitive. I suggest to you  
10 that the reason for that is readily determined, that  
11 there is not an undue percentage of discrimination and  
12 the reason that this is obvious is by calculating the  
13 load factors and the load factors work out at 50.6  
14 as against 40.9. Now, the reason I draw your  
15 attention to this is that I have now worked on  
16 averages within rate class competitive and non-  
17 competitive groupings and I am just suggesting to you  
18 that what appears to be discrimination is not in point  
19 of fact discrimination when all factors are taken into  
20 account. Even as I brought them into balance, Dr.  
21 Roberts, and used them as that average, these two  
22 classes of traffic, as my key, my mathematical  
23 calculation they can be thrown very far off because  
24 of characteristics, loading, value and all these other  
25 factors are so far differentiating from the average  
26 that you cannot usefully use them. That is my point.

27 A. I would like to make a counter  
28 suggestion, if I may, that this does measure  
29 discrimination. The tone mile rates and the non-  
30 competitive traffic are lower. The average haul --





1  
2 Q. The ton mile rates.

3 A. The relationship as I understand it  
4 was that the ton mile rates are higher for the  
5 competitive traffic, the loadings, the average loadings  
6 on the competitive traffic are greater than on non-  
7 competitive traffic.

8 Q. No, I reversed it and that is why I  
9 gave it to you. I am sorry but that was my whole  
10 point. My point was that the relationship -- we  
11 rule out length of haul?

12 A. Yes.

13 Q. And the relationship, it does not matter  
14 for the purpose of illustration, but the relationship  
15 of the revenue characteristic along with load  
16 characteristic, one was the antithesis of the other.

17 THE CHAIRMAN: You allege one cancels the  
18 other.

19 MR. SINCLAIR Q. Working on averages I am  
20 saying what I can do or try to estimate what I can do  
21 and I may not always succeed but I am showing him what  
22 I can do with the figures from the board's waybill  
23 analysis.

24 A. May I say more about this?

25 Q. Yes.

26 A. If the ton mile revenues are higher in  
27 the one case. ---  
28  
29  
30





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Q. Yes?

A. But that car mile revenues relatively go the other way.

Q. Yes?

A. This must mean that the average loading in the cases where the car mile revenues are relatively high is much greater, and that the differential in favour of that traffic exceeds the differential in favour of the ton mile rates. This is the only thing that would mean car mile revenues were different. What I am trying to say is this, that although, if -- and we have got distance neutralized -- and if we say one of the dominant considerations of the cost per ton mile of handling traffic is how many thousand pounds of it you can get in a freight car . . .

Q. Yes?

A. . . . what we are simply saying is that while the rates on the non-competitive traffic may be lower, this loads so much more heavily that the unit costs are even more low, relatively, than are the rates. In other words, the differential in costs is different than the differential in ton mile rates. This is discrimination.

Q. This is another point I am dealing with at this time. This is what I was trying to show you -- why we could not use averages. I must say, just because I don't follow up and feel that answer of yours does not mean I agree with it, but what I am trying to do is tell you this, that I gave you figures







1  
2 taken from the Board's Waybill Analysis and I picked the  
3 ones that you picked?

4 A. Yes.

5 Q. And said discrimination was indicated  
6 because of a 21 per cent differentiation -- and this is  
7 on page 20 -- I gave you the loading characteristics,  
8 which was a 20 per cent -- in fact, I balanced the  
9 differentiation in rates by the differentiation in load.

10 A. Yes.

11 Q. That is why I followed it through in  
12 the way that I did, and from that I put to you that the  
13 use of averages as the key will not give you a determina-  
14 tion of discrimination because I am certain that you will  
15 agree that in non-competitive traffic and in competitive  
16 traffic operating in eastern Canada that there are  
17 very marked differentiations in cost?

18 A. Well, I think perhaps, although as you  
19 say my last statement was directed to another aspect  
20 of this discussion than you were attempting to deal  
21 with, I am not sure this is true. You have given me  
22 this as an example of the misuse of averages. I am  
23 well aware of the misuse of averages, and I assure  
24 the Commission I have no purpose in intentionally  
25 misusing averages.

26 Q. Oh, I am not suggesting that.

27 A. I am sure not. As I said -- and I  
28 think this is the relevance of my answer -- I believe  
29 this statement based on the figures I have used is  
30 a correct statement, and if you consider as a measure





1  
2 of unit costs of competitive and non-competitive traffic---

3 Q. Revenue alone?

4 A. No, of the revenue unit costs, as we said, if  
5 you load 100,000 tons into a car or 10,000 tons, the  
6 chances are pretty well, unless there are substantial  
7 variations in other things, that the unit cost in  
8 the latter case is going to be of the order of ten  
9 times that of the former. The basic occasions for  
10 occurring operating costs on the railroad is production  
11 of car miles. In other words, I think it is another  
12 way of saying, other things being equal, if you load  
13 one car twice as heavy as another car for the same haul  
14 and the same distance, the chances are very great the  
15 cost per ton mile is going to be half as much or twice  
16 as much, whichever way you look at it. As I ex-  
17 plained to Mr. McDonald this morning, discrimination  
18 is measured by differences in the ratios of the in-  
19 creased revenues earned. If, in other words, the  
20 loading of the traffic with the relatively low ton mile  
21 rates is even proportionately more, so that the unit  
22 cost of the traffic is very low, the fact that the ton  
23 mile rates are lower, if the ton mile costs are even  
24 lower than that, relatively, there is discrimination.  
25 This is the only meaningful measure of discrimination.

26 Q. I suggest no, because there are many  
27 factors in costs that are meaningful that you eliminated  
28 by this procedure. You have assumed by working on  
29 averages that once you bring into relationship loading  
30 and revenues -- in other words that heavy loading low







1  
2 rate can give you the same revenues as light loading  
3 and high rates, this is mathematically right?

4 A. Yes.

5 Q. That once you give effect to this in your  
6 analysis that you may then confidently move off into  
7 the determination of whether discrimination exists.  
8 Is that your last answer properly summarized?

9 A. Well, I don't know. What I am simply  
10 saying is that from the standpoint of the factors we  
11 have considered in this discussion, namely, distance,  
12 loading and revenue per ton mile, I say there is evi-  
13 dence. This is not a strong assertion. I said  
14 there is strong indication that this may be the case.  
15 If someone wants to argue that the cost of providing  
16 a car mile of service is substantially higher in the  
17 one territory ---

18 A. But they are both in the same territory.

19 Q. Oh, they are both in the same; well, then,  
20 I should put it this way: if there are some peculiar  
21 characteristics of competitive traffic as to where it  
22 moves in a certain haul of 150 miles in one place  
23 through very dense terminals with high costs, and  
24 characteristically non-competitive traffic moves much  
25 more freely and economically, then, of course, that  
26 would alter the fact. But I don't think you can  
27 generalize about it.

28 Q. And the reason you can't generalize is  
29 that you must look at specific movements to get their  
30 cost characteristics, and if you are going to work





1  
2 discrimination on a relationship to average costs where  
3 these differentiations of movement, claims experience  
4 and things like that are left out of the picture  
5 entirely ---

6 A. Surely. This would imply again, if  
7 there is some reason for supposing that competitive  
8 traffic has higher claims experience, or lower, then  
9 obviously that is not taken into account.

10 Q. Or particular routings?

11 A. Yes.

12 Q. Of the non-competitive?

13 A. Yes.

14 Q. Or particular traffic patterns?

15 A. Right. I would not agree, however,  
16 as I gathered is the import of the discussion, that  
17 averages have no place in life.

18 Q. "Averages have no place in life" -- well,  
19 that is too big a subject for me.

20 A. That is a philosophical discussion.

21 Q. Yes, that is a philosophical discussion,  
22 but the point that I think we must be careful of is not  
23 to let averages take our eye off what the railways  
24 are doing in this country, and I am going to say . . .

25 A. Agreed.

26 Q. I am going to say this point is, to  
27 provide overall transportation at the least total cost  
28 consistent with maintaining these railways, essential  
29 as they are, in a fine and open way of handling traffic  
30 and being financially sound?





1  
2 A. To the extent the country require their  
3 services.

4 Q. To the extent the country requires their  
5 services, tested by, you would agree, the substitutional  
6 cost of another transport medium; correct?

7 A. The extent to which the country requires  
8 their services is, of course, determined by the amount  
9 of traffic which shippers in the country at prevailing  
10 rates are willing to accord to the railways -- if that  
11 is the same thing.

12 Q. Well, I will argue that at a later time.  
13 Now, Dr. Roberts, you have been very patient with me,  
14 but there are just one or two little specific things I  
15 would like to understand. I am a sugar beet shipper ---

16 MR. FRAWLEY: Southern Alberta.

17 MR. SINCLAIR: Southern Manitoba.

18 MR. FRAWLEY: But that is not such good beets,  
19 but you can have it.

20 MR. SINCLAIR: Q. I am a sugar beet shipper,  
21 and I have my farm near Morden, Manitoba, and the rate  
22 is about 8 cents a hundred. I got into this trouble  
23 before when I didn't have anybody to tell me the rate,  
24 but I now have. At \$1.58 a ton -- my rate is 8 cents  
25 a hundred, and my variable costs for the moment are  
26 6.5, 6.6, 6.7 cents, if you like.

27 MR. FRAWLEY: That is the first break in the  
28 wall.

29 MR. SINCLAIR: I should make this clear, Mr.  
30 Chairman, that I have never to this Commission suggested







1  
2 that the railways or the Canadian Pacific were incapable  
3 of properly determining costs; quite the contrary. We  
4 are quite competent to determine costs. We think we  
5 know something about it. What we don't want to do is  
6 to give it to our competitors.

7 MR. FRAWLEY: It is like the family silver.

8 MR. SINCLAIR: Q. Let us go 8 and 7, so  
9 that my friend will not get worried again -- 8 and 7.  
10 The rate is 8, the variable cost is 7. Your plan  
11 comes into effect, and all the competitive rates on  
12 the Canadian Pacific that are paying over 250 per cent  
13 of variable must fall, and there is a substantial loss  
14 of revenue resulting therefrom -- assume this with me.

15 A. An assumption.

16 Q. Yes -- which Canadian Pacific have been  
17 using for cross-subsidization in moving my sugar beets  
18 to the sugar beet factory near Winnipeg. Canadian  
19 Pacific Railway, faced with this, says to me, the sugar  
20 beet shipper, "I am sorry, I can't move your sugar  
21 beets any more. I can't move them any more because  
22 the money I was getting by moving the competitive  
23 rated traffic, we will say, at more than I now can  
24 charge I was using to enable you to move your goods  
25 at a small amount above the variable costs. I can't  
26 do this any more." Now, what does Canadian Pacific  
27 do for the sugar beet shipper?

28 A. May I answer this -- I don't want to be  
29 put in the category of asking you questions, but is  
30 there a suggestion here that more money could be made by





1  
2 charging a higher price for the sugar beets?

3 Q. The sugar beet shipper from Morden?

4 A. Yes.

5 Q. Let me -- I don't want to get into a  
6 position of arguing with you -- let us assume, to make  
7 it easy -- which, I think, is the fact -- that this  
8 demand price for the sugar beets at the plant in  
9 Winnipeg is extremely elastic, and transportation is a  
10 factor in the movement?

11 A. The company would be worse off -- I  
12 don't know why the C.P.R. would want to raise this man's  
13 rates.

14 Q. But the money I got to enable me to carry  
15 at those rates I no longer have; I got that from the  
16 chunk above maximum in the competitive rated field.

17 A. This creates a problem, but it can't be  
18 solved by raising the sugar beet rates.

19 Q. But it could be solved by allowing the  
20 rate structure to remain as it is, because I have given  
21 you an example where competitive rated traffic was  
22 contributing to non-competitive rated traffic?

23 A. Yes. If I were in the position of asking  
24 questions ---

25 MR. FRAWLEY: You can ask Mr. Sinclair to  
26 clarify it.

27 THE WITNESS: Well, it helps the discussion, I  
28 think. If we were talking somewhere else, this is what  
29 I would ask: "Do you think the Canadian Pacific is  
30 making enough money?" Maybe this is not a fair question.







1  
2 MR. SINCLAIR: Q. I can answer that very  
3 easily. Would you like me to?

4 A. Yes.

5 Q. I can answer it at great length or  
6 very simply.

7 MR. FRAWLEY: At great length, please.

8 MR. SINCLAIR: Q. The answer is "No".

9 A. Well, I suggest there are two things that  
10 can be done: one is to raise the rates on sugar beets  
11 as you implied was a possible recourse, to more rigid  
12 ceilings. This would not be a good way. Another  
13 way would be to raise the rates under current ceilings,  
14 under the present standards of control, and presumably  
15 we would have different market conditions there, and  
16 this may be a good way to get more revenues, but, so  
17 far as I know, this is not palatable in your country or  
18 in the United States, that regardless of anything the  
19 railways are entitled to so much revenue. You  
20 recognize, and we all recognize, I think, the pro-  
21 priety of some kinds of ceilings. The test of whether  
22 or not a shipper should pay a certain rate is not the  
23 overall earnings of the railway company; that there  
24 are some equitable and economic limits need to be  
25 placed on this, and we are talking about a different  
26 set of limits. They may be lower; and they may not  
27 -- I don't know.

28 Q. Well, I want to deal with specifics be-  
29 cause this is the only way I know how to analyse the  
30 problem put before me; I get lost the other way. I am





1  
2 a sugar beet shipper, and I have got a very elastic  
3 demand on sugar beets at Winnipeg, so the rate, as  
4 the railways have worked it out, is just about where  
5 it should be?

6 A. Eight cents.

7 Q. And on the competitive rated traffic,  
8 which is over the ceiling that would be effective, may  
9 therefore have to drop, that segment of revenue is  
10 being used on Canadian Pacific to cross-subsidize the  
11 non-competitive sugar beet movement at the rate I have  
12 given you?

13 A. Yes.

14 Q. My question to you is, what does Canadian  
15 Pacific do in that circumstance? That is the first  
16 question. The second question, if you want them to-  
17 gether, is what do I, the sugar beet grower, do with  
18 my sugar beets -- and what does the Canadian Pacific  
19 do under this situation -- and explain how the sugar  
20 beet shipper is better off and how the Canadian Pacific  
21 is better off?

22 A. As far as the sugar beet shipper is  
23 concerned, I can only repeat what I said: I don't think  
24 in your own interests it would make any sense to in-  
25 crease his rate, if you say it is an optimum rate.

26 Q. Where am I going to get the money?

27 A. You certainly can't get it from him.  
28 So, in answer to your first question, nothing will happen  
29 to the sugar beet producer.

30 Q. Therefore, you say if I can't get it out





1  
2 of some other traffic, then the result inevitably must  
3 mean I can't carry his sugar beets?

4 A. Are you contemplating -- is there an  
5 implication here the railway will go out of business?

6 Q. No, no.

7 A. You are making money on the sugar beets.

8 Q. What the implication is, Dr. Roberts,  
9 is that I so adjust the sugar beet rate so that I do  
10 force that sugar beet shipper off the railway to an  
11 alternative means of transport even though it is higher  
12 cost. This is what you have difficulty in determining,  
13 because you are suggesting to this Commission that the  
14 railway would be better off -- let us see if you  
15 agree -- that the railway would be better off because  
16 by using the high rates, these competitive rates, to  
17 the maximum level that you suggest that were in an  
18 inelastic demand that supported the high level has now  
19 become very, very elastic?

20 A. More elastic.

21 Q. "Very elastic" is the word you used, I  
22 think. In this country we have agreed charges which  
23 are negotiated by contract, and some of them cover  
24 100 per cent of the movement. Certainly, by using an  
25 agreed charge rate that is above the maximum is not  
26 going to give us any more traffic when we have a  
27 contract for 100 per cent now; you will agree with that?

28 A. Yes -- assuming it is above the ceiling.

29 Q. Then, if while not carrying the 100 per  
30 cent the railways had negotiated for a percentage







1  
2 less than 100 at a given rate, before they do that  
3 they have analysed and know specifically and meticulously  
4 the demand potential of the traffic they are dealing  
5 with, and so therefore a reduction in one of those  
6 rates, even not at 100 per cent, will not enable them  
7 to get more traffic; you would agree with this?

8 A. Yes, sir.

9 Q. So therefore, in respect of competitive  
10 rated traffic, which happens to be covered by agreed  
11 charges, there is nothing, I suggest to you, that the  
12 railways can look to for loss of revenue through in-  
13 creased tonnage to offset the loss of revenue that  
14 would arise from your scheme; you agree with that?

15 A. You have certainly outlined cases where  
16 expansion would be unlikely. I don't know the relative  
17 importance of this.

18 Q. The relative importance of agreed charge  
19 traffic?

20 A. Yes, in terms of the traffic that would  
21 be subject to new and perhaps lower ceilings, the rates  
22 of which would be held down.

23 Q. Just to make you feel a little happier  
24 about that, maybe I can give you some idea. The Waybill  
25 Analysis for 1958 shows the average revenue per ton mile  
26 for competitive rates, 2.07 for a haul of 295; agreed  
27 charges, 2.47 for an average haul of 348 miles; non-  
28 competitive commodity rates, 1.78 for an average haul  
29 of 320 miles.

30 A. I was referring really to the relative





1  
2 volumes, Mr. Sinclair.

3 Q. The relative volumes?

4 A. The question I was raising was how  
5 relatively important the agreed charges are in this  
6 sector of traffic we are talking about -- whether it  
7 is a quarter of it or a tenth of it.

8 Q. Well, I could work that out from the  
9 Board's Waybill Analysis.

10  
11 ---Short recess.  
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1

2

THE CHAIRMAN: Order, Please.

3

MR. SINCLAIR: Q. Dr. Roberts, before the

4

recess I put to you this question. I gave you the

5

relationship of ton mile and length of haul by the

6

categories of traffic taken from the board waybill

7

analysis. Just to complete it, I have also made the

8

calculation including class rated traffic, which I

9

left out. If you wanted to put class rated into the

10

average that I have dealt with, it would move to 1.99

11

cents for an average haul on 334. That is, it would

12

move the 1.78 average for non-competitive commodity rates

13

to 1.99 cents, and would move length of haul from 320

14

to 334?

15

A. Yes.

16

Q. I ask you in the light of that, and if you

17

will accept from me that class rated traffic on Canadian

18

Pacific by volume is a very very small percent -- if you

19

will accept from me, say, oh, something under five?

20

A. Yes.

21

Q. This, then, I suggest to you, indicates

22

that by using an average factor for variability to

23

determine an average factor for constancy or fixed costs

24

is bound to result in an imperfect basis for determining

25

the ceiling rate as a key.

26

A. Well, I cannot agree, Mr. Sinclair. I do

27

not know whether we are having communication difficulties

28

or not.

29

Q. Well, maybe we are.

30

Well, I will not take any more time. Just let





1  
2 me go then to another point.

3 COMMISSIONER GOBEIL: Mr. Sinclair, when you  
4 were in the sugar beet business, before, you said that  
5 you were losing money on it?

6 MR. SINCLAIR: No. I gave him a rate that was  
7 .7 and .8.

8 COMMISSIONER GOBEIL: I think Dr. Roberts asked  
9 you if you were making money and you said no.

10 MR. SINCLAIR: I said -- I am sorry if I did.  
11 The figures I gave --

12 THE CHAIRMAN: You might not be making enough?

13 MR. SINCLAIR: The rate would be .8. Well,  
14 never mind the points; take 8. The rate is 8, and the  
15 cost is 7; so that gives me on the existing factor a  
16 contribution to fixed of 1 on 7.

17 THE WITNESS: Yes, 14%.

18 MR. SINCLAIR: Q. Well, let me suggest this  
19 to you, that there would be under your plan what you have  
20 termed a more subtle type of downward discrimination which  
21 would exist in the following circumstance: where the  
22 demand characteristics of the commodity being shipped  
23 were such as to enable the rate to be above the maximum  
24 proposed and where the traffic was highly competitive?

25 A. I am sorry. Would you repeat that? I  
26 missed the last part.

27 Q. And where the traffic is highly competitive?  
28 Would you agree?

29 A. What I refer to in this, where the term  
30 "subtle" was used, was the fact that in downward





1  
2 discrimination you can have under-pricing where rates  
3 are below a level which would maximize net, short of the  
4 kinds of ceilings we are talking about.

5 Q. But I have put to you that you would still have  
6 downward discrimination where the demand characteristics  
7 were such that the rate could be above the maximum, and  
8 to look after the social consequences I added that the  
9 traffic was highly competitive.

10 A. Well, this may be a definitional thing.  
11 By downward discrimination I mean discrimination at rates  
12 below average costs. These rates you are referring to,  
13 by definition, could not be below average costs. They  
14 would above.

15 Q. But there could still be discrimination, in  
16 that the railways would be, by legislative fiat, by  
17 directive, under-pricing the demand characteristics of  
18 the product by charging only the maximum rates?

19 A. There would be pricing that is less than  
20 -- rates at less than something that would yield maximum  
21 net revenues, yes, which is the purpose of the ceilings  
22 to prevent in some cases.

23 Q. And what you would thereby be doing, I  
24 suggest to you, is interfering with the interplay of  
25 market forces in transportation unnecessarily? Correct?

26 A. I do not know whether you would say  
27 unnecessarily. In any strict construction, of course, it is  
28 not necessary to have any kind of price ceilings in  
29 transportation. The concept of reasonable rates is not  
30 a necessary thing. We believe this is calculated in the







1  
2 public interest, and I think the same thing would apply  
3 to setting of ceilings that were derived from some basic  
4 economic Rationale, as well as any other.

5 Q. Let me see if you would agree with this  
6 statement:

7 "Competition cannot perform effectively its  
8 basic functions of forcing innovation and  
9 efficiently channelling resources into  
10 alternative uses and to the most capable  
11 producers if it is restricted?"

12 A. Yes, I will agree with that.

13 Q. And the example I have given to you, you  
14 will agree, does restrict competition?

15 A. I do not believe so.

16 Q. Well, it necessarily, I suggest to you,  
17 Dr. Roberts, prevents the railways from maximizing its  
18 revenues, bringing about the greater efficiency in  
19 innovations by maximizing its revenues and yet not  
20 having any social disability because the traffic, even  
21 priced there, is priced there in face of a high  
22 competitive factor?

23 A. This, as I have said, applies to any kind  
24 of rate ceilings. It seems to me those that are  
25 presently imposed prevent the railways from maximizing  
26 in certain kinds of circumstances.

27 As I understand the issue here, it is not  
28 whether there should be any kind of maximum rate control  
29 but what kind of maximum rate control. At least, this is  
30 the issue I was addressing myself to.





1  
2 Q. I would suggest to you that the maximum  
3 rate control now imposed places the ceiling at a very  
4 high level; much higher than you would contemplate?

5 A. I might suggest we do not know really what  
6 these ceilings would be. I am sure they would be well  
7 above full cost, for example.

8 Q. Well, one of the points of your proposal,  
9 of your plan, you will agree, is that it is speculative  
10 in its application and in its basis because you must  
11 forward-look into an area, which makes it difficult to  
12 be even definitive within a pretty large area?

13 A. As I have said, you must speculate, in the  
14 same way a businessman speculates when he decides how  
15 much to invest; what to invest in; how to price his  
16 product.

17 Q. But the businessman has not got the multi-  
18 range of product movements that the railway has. No  
19 business has the hundreds of thousands of movements and  
20 commodity combinations that a railway has?

21 A. No, if the railroads are pricing, if they  
22 are to price them rationally, as has been suggested they  
23 do, then they must make some kinds of determination from  
24 time to time with respect to the full range of their  
25 output.

26 Q. But in regard to bringing them to a  
27 ceiling that is fixed in principle or by fiat you have,  
28 I suggest to you, forced them to make speculative  
29 decisions to a very much larger degree than they are  
30 forced to do at present?







1  
2 A. I do not believe so. I do not think the  
3 speculative decisions are imposed upon the railways. In  
4 our case, they would be imposed on the regulatory  
5 authority trying to determine output and costs so the  
6 ceilings can be set intelligently.

7 Q. So what you would do is substitute the  
8 experience and the meshing of costs and experience and  
9 market analysis that is now operative in the traffic and  
10 research department; you would put that aside, which is  
11 the basis of railway pricing today, and you would say  
12 that a regulatory tribunal with professional help would  
13 arrive at a more just and equitable freight rate  
14 structure?

15 A. Oh, certainly not. No. The railroads  
16 would certainly still have their day to day pricing  
17 problems to do.

18 Q. But in the final analysis a maximum would be  
19 set through this application of theory in a speculative  
20 area of market analysis?

21 A. The price ceilings would be set  
22 appropriately by regulatory authority.

23 Q. Which must do what I have just said; they  
24 must operate in the speculative application of market  
25 analysis and the theoretical concept of uniform pricing?

26 A. They must be set by a regulatory authority,  
27 employing all of the analytical techniques and data  
28 which are progressively becoming more and more  
29 available.

30 Q. Does not the way I put it amount to exactly





1  
2 what you are doing, but I am using words that maybe you  
3 do not agree with. They are harsh words. Instead of  
4 using "burden", for instance, like an economist, a  
5 fellow who wants to sell something calls it "cost".  
6 Instead of using "discrimination", like an economist,  
7 a barrister might use the word "differential pricing";  
8 it is not so harsh. But, in effect, what they are doing  
9 is -- this regulatory tribunal, I suggest to you, Dr.  
10 Roberts, that they are in the speculative area of  
11 market analysis.

12 A. Perhaps we could compromise on the word  
13 "forecasting". Some forecasting must be done.

14 Q. Well, "forecasting" -- I think you must  
15 agree with me "forecasting" necessarily is speculative?

16 A. Yes.

17 Q. Now, Dr. Roberts, you would agree with me,  
18 would you, that one of the most serious threats to  
19 private enterprise and the rail transportation would  
20 be the impairment of railroad credit and the inability  
21 of the carriers to attract necessary capital?

22 A. Yes.

23 Q. And you would agree -- I am summarizing  
24 this from some of the answers you have given to my  
25 friends -- that unless there was social necessity in  
26 the economic sense, rates should not be fixed at an  
27 unremunerative level?

28 A. Right.

29 Q. But you would agree that if social  
30 necessity required rates to be fixed at an unremunerative





1  
2 level and the difference between the level and a  
3 remunerative rate was made up by subsidy, that that  
4 subsidy should clearly delineate the purpose for which  
5 it is being granted?

6 A. Yes, sir.

7 MR. SINCLAIR: Thank you very much, Dr.  
8 Roberts, and I may say to you that as you come from  
9 Pittsburg there are some of us here who were very close  
10 to you not very long ago, and we certainly appreciate the  
11 work they did, at least in one field that we know.

12 THE WITNESS: Thank you, Mr. Sinclair, I  
13 cannot imagine any kinder words.

14  
15 BY COMMISSIONER ANSCOMB:

16 Q. I just would like to ask you this, and  
17 maybe it has nothing to do with Mr. Sinclair has said  
18 at all.

19 If you were in charge of our two railways  
20 tomorrow morning, how long would it take you to put  
21 your ideas into effect?

22 A. Do you mean all my ideas about railroading,  
23 or what I am talking about here?

24 If I were in charge of the railroads, I doubt  
25 if I would want to put some of these ideas into effect.  
26 Certainly I think, despite the protestations that there  
27 are no unremunerative rates, I think unless there is  
28 constant re-examination of these things that some of  
29 them are going to crop up. If you are depending upon  
30 complaint to ferret these out, unless I fully understand







1  
2 the institution, one thing I would want to do would be  
3 to insure that there is continuing review.

4 How long it would take me to do this, I just  
5 do not know. It would depend upon the staffing and the  
6 rest of it.

7 Q. I know. That is all right, Doctor, but  
8 surely you can give me some idea. Would it take months  
9 or would it take years?

10 I do not know anything about the railroad  
11 business. I am learning something, and I want to find  
12 out.

13 A. Well, there are no United States railroad  
14 people in the group, so perhaps I can speak rather  
15 frankly.

16 I think if I were the president of many  
17 railroads in the United States, it would be a matter  
18 of years. I think there is a question of hierarchies  
19 that are just extremely difficult to budge. Despite our  
20 concept of quasi-military organizations, from experience  
21 I have seen railroads have a hard time moving their  
22 lieutenant generals, and their troops, a lot of times.  
23 And this is a real problem in most cases that I know  
24 about. I suspect it is not true -- in fact I believe  
25 is less true in Canada than in the United States.

26 Q. I do not think you quite have my idea.  
27 I say if you were in charge, and if you were in charge  
28 you would fire your generals if they do not do what you  
29 tell them to do?

30 A. This is a good question, whether you just





1  
2 completely overturn an organization overnight.

3 Q. There is only two in Canada worth while.

4 A. If you were responsible for either one of  
5 them, and you have some ideas and you say "Next Tuesday,  
6 I am going to put them into effect", and people drag  
7 their feet, I do not know whether you sack them all or  
8 not.

9 As I say, this is a rather serious thing.  
10 And, as I say, I think most of the burden of my brief  
11 is not particularly relevant for railroad management  
12 to do something about; this is addressed to the  
13 regulators, as you know.

14 COMMISSIONER ANSCOMB: Thank you, Dr. Roberts.

15 BY COMMISSIONER MANN:  
16

17 Q. Dr. Roberts, you have been very patient  
18 in answering questions. I just have a couple of minor  
19 points. They are almost peripheral.

20 In your Appendix III, you talk about data and  
21 analyses required for applying uniform pricing rule and  
22 you make certain points there.

23 Now, I discussed this with Dr. Williams, and  
24 I would like to have your comments as well. For the  
25 successful working of your proposal, would you require  
26 an extremely strong cost section, cost-finding section  
27 of the regulatory agency?  
28  
29  
30







1  
2 A. Yes, I would think so. Of course, one  
3 thing here which strikes me -- if I were talking like  
4 this in the United States forum it would be seem that  
5 basic problems of data would perhaps seem formidable,  
6 but here with two railways they seem less formidable,  
7 particularly with two railways that have themselves  
8 done a good deal of basic research on marketing and  
9 costing. This is well recognized in the United States.  
10 I certainly believe that in conjunction with this and  
11 effectuating any kind of programme of rationale  
12 regulation, good strong research staffs and costing  
13 among them is a very important part. For instance,  
14 the ICC about which I can speak freely north of the  
15 border has been notoriously weak in research as a result  
16 of which the Commission in the motor carrier field does  
17 not know much about this industry. It is just in-  
18 credible. They are trying to regulate an industry  
19 with thousands and thousands of firms speaking of  
20 economic relationships that just do not make sense.  
21 They are confronted in congressional investigations  
22 with questions to which they simply have to say they  
23 do not know and they are basic questions. So, in  
24 general terms, I think the regulatory authorities  
25 should have something more than tabulated statistics.  
26 They need good strong economic advice and certainly  
27 this would be one of the important points.

28 Q. May I ask you the converse of this  
29 question, if the regulatory agency did not have such  
30 a strong cost-finding section and a section giving





1  
2 strong economic advice would the success of your  
3 proposal be imperilled?

4 A. Yes, I think there is no question. Again  
5 it gets back to the question of precision that I mentioned  
6 this morning and I think reasonably good indications  
7 liberally construed would be better than what I consider  
8 -- perhaps there is no general agreement with this,  
9 but what I consider good, real standards set and, again,  
10 precision, to come up with any kind of price ceiling  
11 it seems to me would depend upon these factors.  
12 If you do not have the good economic research then  
13 pretty broad margins are clearly called for.

14 Q. I just have one more question and this  
15 is very minor. On page 30, Appendix III, you talk  
16 about the waybill study both here and in the United  
17 States, and as we both know they are both on the one  
18 per cent basis. You make a suggestion that adequate  
19 Canadian waybill study might be strengthened by in-  
20 creasing the size of the sample to two per cent?

21 A. Yes.

22 Q. Now, did you just pick two per cent as  
23 being higher than one, or did you do this on purpose?

24 A. No, I did not attempt to compute margins  
25 of error. The reduction would come from a two per cent  
26 rather than a one per cent sample. I simply found  
27 out in computing these car mile ratio samples when you  
28 applied the car mile revenue data in the United States  
29 on a one per cent sample by miles it is a rectangular  
30 hyperbola, not a wave in it. You do this for Canada





1  
2 and I noticed it is curved, so it is all right, but  
3 some of it goes all over the place. While this is a  
4 sample error it does not make much sense if you have  
5 a big sample. In other words, the normal rate forms  
6 being filed here by this waving line and the regularity  
7 of it was quite clear. It is the manifestation of  
8 the inadequacy of the sample. However, the reverse  
9 is so very much similar you have one per cent of one  
10 hundred cars and it is quite a different thing from  
11 one per cent of five thousand cars.

12 Q. But you have not come to any conclusion,  
13 bearing in mind the Canadian universe, as to what per-  
14 centage of sample our waybill analysis should have?

15 A. No, it is a simple illustration. I  
16 think adopting the two per cent would substantially  
17 reduce the sampling error but I do not know.

18 COMMISSIONER MANN: Thank you very much.

19  
20 RE-EXAMINATION BY MR. FRAWLEY:

21 Q. In cross-examination by Mr. Sinclair this  
22 morning you made an answer that I want to call to your  
23 attention. Mr. Sinclair led up to that answer by  
24 these questions:

25 "Q. And the effect of that, I suggest to you,  
26 economically, is to look at only the one  
27 side of the discrimination equation, and  
28 that is that it necessarily looks away  
29 from discrimination justification on the  
30 reduction of all rates, both high and low,







1  
2 and looks for its justification on the  
3 reduction of high rates?

4 "A. I can't accept this, really.

5 "Q. I can understand why you can't accept it,  
6 but I am suggesting to you you have made  
7 it clear to my friends on a number of  
8 occasions that you are not suggesting the  
9 low rates go up; you are going to leave  
10 that to the railways?

11 "A. Yes.

12 "Q. But you are certainly suggesting that high  
13 rates come down?

14 "A. If you mean looking at it from one side,  
15 then quite clearly the answer is 'Yes'."

16 I am sure you do not want to leave the impression  
17 with the Commission that you looked at this problem  
18 from one side?

19 A. Oh, no.

20 Q. I would like you to indicate whether  
21 or not you think that last answer was an incomplete  
22 one or would you like to comment on that answer?

23 A. I certainly do not want to leave the  
24 impression of a one-sided analysis. I think what I  
25 said or endeavoured to say was that I certainly looked  
26 at the full subject of discrimination. We had this  
27 distribution in the United States in this part of  
28 the analysis to review out of pocket cost ratios,  
29 but in terms of the fact of applying the principles  
30 enunciated in that statement only one side of the





1  
2 discrimination picture was altered explicitly, namely,  
3 the high side. There were proposals that perhaps some  
4 high rates should be reduced. With the test I proposed  
5 the question of whether some consideration was given  
6 to the other side, actually the question of low rates  
7 and the introductory paragraph suggested that if there  
8 are some too low, along the lines we have talked about  
9 this afternoon, they should be increased. The main  
10 purpose was on upward discrimination, so we dealt with  
11 one side of discrimination in this way, but I will not  
12 confess to a one-sided analysis.

13 MR. SINCLAIR: I would not argue that he  
14 had either; I would argue he had done just what he  
15 said he did.

16 THE CHAIRMAN: I think we understand your  
17 position.

18 MR. FRAWLEY: If we do not we will hear it  
19 when the time comes for summing up.

20 THE CHAIRMAN: Thank you very much, Dr.  
21 Roberts.

22 MR. FRAWLEY: I will call Dr. Little.  
23  
24  
25  
26  
27  
28  
29  
30







1  
2 WALLACE I. LITTLE, called

3  
4 DIRECT EXAMINATION BY MR. FRAWLEY:

5 Q. Dr. Little, you live in Seattle,  
6 Washington?

7 A. I do, yes.

8 Q. I will just read this professional and  
9 personal record of yours and then ask you if you agree  
10 with it or otherwise.

11 Personal Data: Age, 39 years, July 16, 1921.  
12 Marital status: married, five children.

13 Education Record: Wethersfield High School,  
14 Kewanee, Illinois, 1936-39; University of Illinois,  
15 Champaign, Illinois, 1939-41, Bachelor of Science  
16 Degree in Business; University of Illinois,  
17 Champaign, Illinois, 1946-47, Master's Degree in  
18 Economics (majored in Transportation); University  
19 of Wisconsin, Madison, Wisconsin, 1950-52, Ph. D.  
20 in Economics (majored in Transportation).

21 Business Experience: International Har-  
22 vester Company, Portland, Oregon Branch Office,  
23 Credit Department, 1947-48.

24 Military Experience: 1st Lt. Field Artillery  
25 and Engineer Corps (assigned); Communications Officer,  
26 Field Artillery, Italy; General Service Engineer  
27 Assigned, Philippine Islands; Construction Battalion,  
28 Construction Yakota Air Base, Japan.

29 Teaching Experience: 1952-54 Instructor,  
30 Oregon State College, Corvallis, Oregon, Transportation





1  
2 and Business; 1954-56 Assistant Professor, University of  
3 Washington, Seattle, Transportation and Business;  
4 1956-Present, Associate Professor, University of  
5 Washington, Seattle, Transportation and Business.

6 Publication Record: The Financial Risk  
7 of Airlines in the United States, Masters Thesis  
8 University of Illinois, 1947; The Determination of  
9 Subsidies to Motor Carriers Through Highway Cost  
10 Allocation, Doctoral Thesis, University of Wisconsin,  
11 1952; "The Basic Issues of the Weeks Report," Pacific  
12 Northwest Business, July, 1956; Monthly Licensing for  
13 Seasonally Operated Motor Vehicles, for the Joint  
14 Fact-Finding Committee on Highways, Streets and  
15 Bridges, Washington State Legislature, 1958.; "Shipper-  
16 Lease Trailer-On-Flatcar Service," University of  
17 Washington, Business Review, 18: 43-48, April, 1958;  
18 "The Future of Guaranteed Rates," Distribution Age, 58:  
19 27-30, 62, July, 1959; The Cost of Motor Vehicle  
20 Accidents to the State of Washington, for the Joint  
21 Fact Finding Committee on Highways, Streets and  
22 Bridges, 1960.

23 Cases on File with Harvard University:

24 1. The Forsythe Chemical Company; 2. The Writewell  
25 Stationery Supply Company.

26 Appearances before Public Bodies: Inter-  
27 state Commerce Commission; Joint Fact Finding Committee  
28 on Highways, Streets and Bridges, Washington State  
29 Legislature.

30 Is that a correct statement of your





1  
2 qualifications and publication record?

3 A. Yes.

4 Q. Now, in Canada we have had a problem  
5 extending over many years and that is the problem that  
6 arises out of the fact that uniformly in revenue cases  
7 when an examination into freight rates is authorized  
8 by the Board of Transport Commissioners, resort is had  
9 to what is known as the Horizontal Percentage Increase  
10 method for increasing freight rates. I approached  
11 you some months ago and asked you to give some thought  
12 to that question?

13 A. That is correct.

14 Q. And you were good enough to say you would  
15 consider it and you did consider it, and you have with  
16 you now a paper which is called "The Cost Based Rate  
17 Increase Formula", which proposes for consideration  
18 an alternative to the horizontal percentage increase  
19 method?

20 A. That is correct.

21 Q. Now, Dr. Little, would you be good enough  
22 now in the time that remains to at least commence the  
23 introduction into the record of the statement which  
24 you have prepared? Ordinarily that is done by reading  
25 it into the record with such interpolations as you  
26 think are necessary and with such omissions from the  
27 reading as you think are warranted. Will you now  
28 proceed to do that?

29 A. Between the periods of April 8, 1948,  
30 and November 17, 1958, a little over ten years, The







Board of Transport Commissioners authorized overall maximum rail freight rate increases in Canada of 157 per cent above their previous level. Rising rail carrier costs before and since April of 1948 have made necessary, in part, such drastic authorized rail carrier freight rate increases. The problem is not whether rail carriers should be authorized to increase rates commensurate with their increased costs, but how such increases should be applied so as to have rail rate increases properly reflect the incidence of cost increases.

It has been the recurrent practice of rail carriers in the United States and Canada to have authorized rail freight rate increases by means of a flat percentage increase applied to existing rates. There have been several reasons for such a practice. The reasons are:

1. The computation of an across-the-board increase is easy to accomplish. Given a need of a specific increase in revenue, the per cent of increase can be computed and used to represent the general rate increase required to assure sufficient revenue to meet revenue requirements.
2. An across-the-board increase in rates makes it possible to administer an increase in rates without the need of replacing existing tariffs.
3. The railways of Canada and the United States





1  
2 have stated an across-the-board increase  
3 in rates is equitable.

4 If the purpose submitted by the rail carriers  
5 for the changing of existing rates is a change in  
6 costs, there is involved an inherent assumption that  
7 new rates should equitably reflect the changes in the  
8 costs. The principal objective of this study is to  
9 devise a means whereby a change in rates will reflect  
10 changes in costs. Therefore, it is not within the  
11 proper scope of this study to determine whether or  
12 not changed rail rates should reflect changed costs.  
13 Such a determination is the responsibility of the  
14 regulatory authority which has the duty of making such a  
15 policy decision. But given the problem of changing  
16 rates so as to accurately reflect changes in costs,  
17 how can this be accomplished so that existing  
18 tariffs need not be replaced and yet changing costs  
19 for varying lengths of movement are reflected?

20 It is not difficult to adjust rate changes  
21 so as to assure changes in revenue will be sufficient  
22 to cover changes in costs. It is rather a simple  
23 procedure to change rates in such a way that the  
24 resulting revenue is sufficient to cover fully  
25 distributed costs including capital costs. But it  
26 is another thing to know that the changed rates which  
27 have evolved from this procedure reflect average  
28 cost changes. It may be adamantly stated that the  
29 principle objection to the flat percentage rate  
30 increase method has been that it does not assure that







1  
2 increased rates reflect increased costs for individual  
3 movements.

4 In other words, if rail rate changes properly  
5 reflect rail cost increases, ideally, they should so  
6 reflect rail cost changes for each movement as well as  
7 for rail freight transportation as a whole. If they  
8 do not, it represents excessive rate increases for the  
9 shippers in one segment of rail transportation. It  
10 is not the objective of this analysis to determine if such  
11 a subsidy should exist. But, it is the objective  
12 of this statement to determine if such a subsidy exists.  
13 Its existence, with or without awareness, will have pro-  
14 found effects on the transportation system which evolves  
15 in the nation.

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THE TERMINAL AND LINE HAUL FULLY DISTRIBUTED COSTS FOR AVERAGE TON WEIGHT BOX CARS  
AND FOR AVERAGE WEIGHT TRAINS FOR THE YEARS 1950, 1956 and 1958, AND THE PER CENT  
INCREASE IN TERMINAL AND LINE HAUL FULLY DISTRIBUTED COSTS SINCE 1950 FOR THE  
EASTERN, WESTERN AND SOUTHERN DISTRICTS OF U. S.  
(in Cents per 100 Pounds)

| Year and District        | Average Tons per Car For the Year | Average Tons Per Car Used | Costs Unrelated to Length Haul (Terminal costs) | Per Cent Increase Since 1950 | Costs Related to length of Haul (Line Haul Costs) | Per Cent Increase since 1950 |
|--------------------------|-----------------------------------|---------------------------|---|------------------------------|---|------------------------------|
| <u>Eastern District</u>  |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 28.7                              | 28                        | 8.777   |                              | .04922  |                              |
| January 1, 1956          | 26.5                              | 28                        | 14.501  | 65.2                         | .06427  | 30.6                         |
| January 1, 1958          | 27.4                              | 27.4                      | 17.251  | 96.6                         | .06793  | 38.0                         |
| Average                  | 27.5                              |                           |   |                              |   |                              |
| <u>Western District</u>  |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 33.1                              | 34                        | 7.380   |                              | .03933  |                              |
| January 1, 1956          | 32.1                              | 34                        | 11.571  | 56.8                         | .04980  | 26.6                         |
| January 1, 1958          | 34.5                              | 34.5                      | 12.738  | 72.6                         | .04923  | 25.2                         |
| Average                  | 33.2                              |                           |   |                              |   |                              |
| <u>Southern District</u> |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 30.3                              | 30                        | 5.744   |                              | .04459  |                              |
| January 1, 1956          | 30.7                              | 30                        | 8.135   | 41.6                         | .05255  | 17.9                         |
| January 1, 1958          | 31.1                              | 30                        | 9.250   | 61.0                         | .05201  | 16.6                         |
| Average                  | 30.7                              |                           |   |                              |   |                              |

Source: Interstate Commerce Commission Bureau of Accounts, Cost Finding and Valuation, Statement Nos. 2-50 (1959), 5-56 (1956), 5-59 (1959).



THE TERMINAL AND LINE HAUL OUT-OF-POCKET COSTS FOR AVERAGE TON WEIGHT BOX CARS  
AND FOR AVERAGE WEIGHT TRAINS FOR THE YEARS 1950, 1956 and 1958, AND THE PER  
CENT INCREASE IN TERMINAL AND LINE HAUL OUT-OF-POCKET COSTS SINCE 1950 FOR THE  
EASTERN, WESTERN AND SOUTHERN DISTRICTS OF THE UNITED STATES  
(in Cents Per 100 Pounds)

| Year and District        | Average Tons per Car For the Year | Average Tons per Car Used | Costs Unrelated to Length Haul (Terminal costs) | Per Cent Increase since 1950 | Costs Related to length of Haul (Line Haul Costs) | Per Cent Increase since 1950 |
|--------------------------|-----------------------------------|---------------------------|---|------------------------------|---|------------------------------|
| <u>Eastern District</u>  |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 28.7                              | 28                        | 6.841   |                              | .03532  |                              |
| January 1, 1956          | 26.5                              | 28                        | 11.066  | 61.8                         | .04313  | 22.1                         |
| January 1, 1958          | 27.4                              | 27.4                      | 13.610  | 98.9                         | .04740  | 34.2                         |
| Average                  | 27.5                              |                           |   |                              |   |                              |
| <u>Western District</u>  |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 33.1                              | 34                        | 5.140   |                              | .02528  |                              |
| January 1, 1956          | 32.1                              | 34                        | 7.938   | 54.4                         | .03017  | 19.3                         |
| January 1, 1958          | 34.5                              | 34.5                      | 9.207   | 79.1                         | .03103  | 22.7                         |
| Average                  | 33.2                              |                           |   |                              |   |                              |
| <u>Southern District</u> |                                   |                           |   |                              |   |                              |
| January 1, 1950          | 30.3                              | 30                        | 4.048   |                              | .02893  |                              |
| January 1, 1956          | 30.7                              | 30                        | 5.930   | 46.4                         | .03342  | 15.5                         |
| January 1, 1958          | 31.1                              | 30                        | 7.124   | 76.0                         | .03479  | 20.3                         |
| Average                  | 30.7                              |                           |   |                              |   |                              |

Source: Interstate Commerce Commission Bureau of Accounts,  
Cost Finding and Valuation, Statement Nos. 2-50  
(1959), 5-56 (1956), 5-59 (1959).







1  
2 Maybe it would be well at this point to move  
3 back to tables I and II and take a glance at those so we  
4 can see what was provided.

5 You will notice that table I provides the fully  
6 distributed costs, and table II provides the out-of-  
7 pocket costs. These are figures for the United States,  
8 and they provide statistics separately for each of the  
9 three districts; the eastern district, the western  
10 district, and the southern district.

11 Q. The source of your information, the statements  
12 2-50 for 1950 and 5-56 -- is that was is known as the  
13 **Green Book** or the Salmon book in I.C.C. parlance?

14 A. I have never heard them referred to in  
15 either of those ways. I am referring to this document  
16 here.

17 Q. Statement No. 5-56, and it is called Rail  
18 Carload Cost Scales for Territories as of January 1, 1956,  
19 based on year 1954 operations with adjustment to reflect  
20 wage and price levels of January 1, 1956. It is prepared  
21 by the Cost Finding Section and dated at Washington, D.C.,  
22 May, 1956, and it is called as I have said, Statement No.  
23 5-56.

24 You were describing the tables: perhaps you  
25 could begin again.

26 A. I pointed out we have here figures' . . .  
27 for fully distributed on table I, and out-of-pocket costs  
28 on table II for each of the three districts -- eastern,  
29 western and southern. We have here listed the average  
30 tons given by these documents per car for the years given





1  
2 1950, 1956 and 1958, by those three different respective  
3 documents, and then the average tons which are given --  
4 I had to follow down to find something that would be  
5 comparable for each of the years, and I selected a figure  
6 of 28, 28 and 27.4 because those were the ton figures  
7 actually given by that document, and you can see they are  
8 almost identical -- two of them are identical, and one is  
9 very close.

10 The cost for a car of 28 tons, the average tons  
11 per car, for 28, for the year 1950 in the eastern district,  
12 the cost unrelated to length of haul was 8.77¢.  
13 Following it across you find in the same table the costs  
14 related to the length of haul for fully distributed costs  
15 -- and I think we can add something to clarify this  
16 column a little: it is the cost related to length of haul,  
17 with line haul costs underscored. If you add there "cents  
18 per hundred-weight mile".

19 Q. As a further caption to the column?

20 A. Yes.

21 Q. Let us number the columns: The year and  
22 the district we will call 1. Average tons per car for  
23 the year, 2. Average tons per car used, 3. Cost  
24 unrelated to length of haul (terminal costs), 4. Percent  
25 increase since 1950, 5. Costs related to the length  
26 of haul (line haul costs), 6. Percent increase since 1950,  
27 7.

28 COMMISSIONER GOBEIL: I have some trouble  
29 between columns 2 and 3 -- the column "average tons per  
30 car for the year". There would be some empty cars there,







1  
2 or cars not used?

3 THE WITNESS: Yes. Let me turn to the document  
4 itself.

5 COMMISSIONER GOBEIL: What I do not understand  
6 is how the second column can be higher than the third  
7 one.

8 THE WITNESS: You mean, when you refer to the  
9 "second" and the "third" -- are you referring to the way  
10 it was numbered by Mr. Frawley?

11 COMMISSIONER GOBEIL: The average tons per car  
12 -- yes.

13 THE WITNESS: You are wondering how I arrived  
14 at different figures for these?

15 COMMISSIONER GOBEIL: How the one is higher than  
16 the other one.

17 THE WITNESS: In the document itself, we have  
18 here -- and I might just let you take a look at this --  
19 we have listed on the far left hand column tons per car,  
20 and they are varying tons per car, and at the bottom we  
21 have the average tons per car.

22 MR. FRAWLEY: Q. You are now referring to  
23 another document?

24 A. I am now referring to my own document and  
25 clarifying it by means of the original document.

26 THE CHAIRMAN: 5-56.

27 MR. FRAWLEY: But you are now discussing with  
28 Mr. Commissioner Gobeil a document other than the brief  
29 from which you are reading?

30 A. That is correct.





1  
2 Q. And other than the tables I and II which  
3 appear on pages 3 and 4 of your brief?

4 A. That is correct.

5 Q. I am only suggesting that we must identify  
6 it, or the transcript will be very hard to follow.

7 A. Yes.

8 Q. If you will identify the document you are  
9 now discussing with Mr. Commissioner Gobeil ...?

10 A. We are reading directly here -- this is a  
11 photostatic copy of one of the three documents which I  
12 quoted as the source of those tables. The one which I  
13 just handed to Commissioner Gobeil a moment ago was the  
14 1956 document.

15 Q. So that it is a photostat of I.C.C.  
16 statement No. 5-56?

17 A. That is correct.

18 THE CHAIRMAN: That is your source, Dr. Little?

19 THE WITNESS: That is correct, and you will  
20 notice that we have a number of different tons on the  
21 far left hand column, but there is an average tons of  
22 movement which is given at the very bottom. In the  
23 document you have, Commissioner Gobeil, it is 30.7. I  
24 wanted to find a number in this column which was as close  
25 to 30.7 as I could. You cannot always find 30.7 because  
26 the tons of the cars are not always given in tenths. So,  
27 I was forced to select whatever seemed to be closest to  
28 that and yet at the same time accomplish the objective  
29 of having the tons per car be very close for all three of  
30 those years.





1  
2 MR. FRAWLEY: Q. So, in that instance, you  
3 took the figure 30 which appears at the bottom of column  
4 3 on table 1?

5 A. That is correct, and it does say that, and  
6 it was 30.7 for the average tons; the average tons per  
7 car used in this table was 30.

8 Q. I think what is causing the trouble is the  
9 use of that word "used". Column 2 is, as it says, the  
10 average tons per car for the year as disclosed in your  
11 I.C.C. material?

12 A. Yes.

13 Q. Column 3 is the average tons per car which  
14 you used in the study you are now presenting?

15 A. That is correct. To interpret this we see  
16 that the cost unrelated to the length of haul, column 4,  
17 in the eastern district increased from 8.777 to 14.501  
18 between the years 1950 and 1956. This represented, going  
19 to column 5, a 65.2% increase in those costs.

20 Between the years 1950 and 1958 the costs had  
21 increased to 17.251 which represented a 96.6% increase  
22 over the base of 1950; not over 1956.

23 Following this across we see much the same  
24 procedure -- exactly the same procedure, in effect, being  
25 followed in columns 6 and 7. In the same document which  
26 I referred to you, there is a column pertaining to costs  
27 per length of haul in cents per hundred-weight mile. We  
28 find in the eastern district in fully distributed costs  
29 that those costs were increased from .049 to .06427 etc.,  
30 or, 30.6% which is substantially less than that for costs







unrelated to length of haul, and it increased to 38% over 1950 in the eastern district by the year 1958.

Q. I think we could well do with a few more words added to your captions. In column 4, "Costs unrelated to length of haul (terminal costs) -- in what?

A. These are in cents per one hundred pounds. They are given above.

Q. Oh yes, I see.

A. The only one which needed clarification was column 6, and I want to add in there "cents per one hundred-weight mile".

I might point out why I say this: I will go rather briefly at this point. In the eastern district, costs unrelated to length of haul increased to more than twice the costs related to length of haul between 1950 and 1956.

We see between 1950 and 1958 it was about 300% of the 1950 figure. It increased almost three-fold.

Following through the other three districts in the United States, we see some comparable figures. In the western district here between 1950 and 1956 costs unrelated to the length of haul increased 56%, while during the same period of time costs related to the length of haul increased 26%, or less than half.

Between 1950 and 1958 in the western district costs unrelated to the length of haul increased 72% while those costs related to the length of haul increased 25%. They had actually decreased from 1956 to 1958.

We find these figures, and somewhat consistent





1  
2 again, in the southern district where costs unrelated  
3 to length of haul increased 41.6 percent between 1950  
4 and 1956, and 61% between 1950 and 1958 for costs  
5 unrelated, whereas they increased only 17% between 1950  
6 and 1956 for costs related to length of haul and only  
7 16.6% between 1950 and 1958.

8 So, there is a very consistent pattern in  
9 accordance with these figures provided, and this becomes  
10 very significant.

11 Q. Have you completed your extemporaneous  
12 discussion of the two tables?

13 A. Yes.

14 THE CHAIRMAN: Well, we will adjourn now until  
15 9:30 tomorrow morning.

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17 --- Adjournment ---  
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